# SQL Joins and Aggregates Practice

## 7. Aggregate Functions Practice

From a 'transactions' table:

SELECT   
 SUM(amount) AS total\_sales,  
 AVG(amount) AS average\_sale,  
 MAX(amount) AS max\_sale,  
 MIN(amount) AS min\_sale  
FROM transactions;

## 8. Grouping with Aggregation

Group by product category:

SELECT   
 category,  
 SUM(sale\_amount) AS total\_sales,  
 COUNT(\*) AS transaction\_count  
FROM sales  
GROUP BY category;

## 9. Inner Join for Orders and Customers

Join 'orders' and 'customers' to show only customers with orders:

SELECT   
 c.name AS customer\_name,  
 o.amount AS order\_amount  
FROM orders o  
INNER JOIN customers c ON o.customer\_id = c.id;

## 10. Left Join for Products with or without Orders

Show all products and their order details (if available):

SELECT   
 p.product\_name,  
 o.order\_id,  
 o.amount  
FROM products p  
LEFT JOIN orders o ON p.product\_id = o.product\_id;

## 11. Right Join for Customer Contacts

Show all customers, even if they don't have contact info:

SELECT   
 c.customer\_id,  
 c.name,  
 ct.phone\_number  
FROM contacts ct  
RIGHT JOIN customers c ON ct.customer\_id = c.customer\_id;

## 12. Full Outer Join for Suppliers and Products

List all suppliers and products with matching or NULL values:

SELECT   
 s.supplier\_name,  
 p.product\_name  
FROM suppliers s  
FULL OUTER JOIN products p ON s.supplier\_id = p.supplier\_id;