

# BrightLight Data Analytics

## SQL JOIN Practice Instructions

### General Guidelines:

1. Use the provided CSV files:
    - orders\_large.csv
    - products\_large.csv
    - customers\_large.csv
  2. Import the datasets into a SQL database system of your choice (e.g., MySQL, PostgreSQL, SQLite, or Snowflake).
  3. Use the appropriate JOINS (INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL OUTER JOIN) to answer each question.
  4. Ensure your query returns exactly the **expected columns** listed for each question.
  5. Use aliases and format your SQL code for readability.
  6. When using FULL OUTER JOIN, make sure your SQL engine supports it (e.g., MySQL does not support it natively — use UNION of LEFT JOIN and RIGHT JOIN if needed).
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## SQL JOIN Practice Questions

### 1. INNER JOIN: Orders with Customer and Product Names

#### Question:

List all orders along with the customer name and product name.

#### Expected Output Columns:

- OrderID, OrderDate, CustomerName, ProductName, Quantity
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### 2. INNER JOIN: Customers Who Placed Orders

#### Question:

Which customers have placed at least one order?

#### Expected Output Columns:

- CustomerID, CustomerName, Country, OrderID, OrderDate

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### 3. LEFT JOIN: All Customers and Their Orders

#### Question:

List all customers and any orders they might have placed. Include customers who have not placed any orders.

#### Expected Output Columns:

- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity
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### 4. LEFT JOIN: Product Order Count

#### Question:

List all products and how many times each was ordered (if any).

#### Expected Output Columns:

- ProductID, ProductName, TotalOrders  
(TotalOrders is the count of how many times the product appears in orders)
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### 5. RIGHT JOIN: Orders with Product Info (Include Products Not Ordered)

#### Question:

Find all orders along with product details, including any products that might not have been ordered.

#### Expected Output Columns:

- OrderID, OrderDate, ProductID, ProductName, Price, Quantity
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### 6. RIGHT JOIN: Customer Info with Orders (Include All Customers)

#### Question:

Which customers have made orders, and include customers even if they have never placed an order.

#### Expected Output Columns:

- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity
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### 7. FULL OUTER JOIN: All Customers and All Orders

**Question:**

List all customers and orders, showing NULLs where customers have not ordered or where orders have no customer info.

**Expected Output Columns:**

- CustomerID, CustomerName, Country, OrderID, OrderDate, ProductID, Quantity
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**8. FULL OUTER JOIN: All Products and Orders****Question:**

List all products and orders, showing NULLs where products were never ordered or orders are missing product info.

**Expected Output Columns:**

- ProductID, ProductName, Price, OrderID, OrderDate, CustomerID, Quantity