**BrightLight Data Analytics**

**Practical 2: SQL JOIN**

**General Guidelines:**

1. Use the provided CSV files:
   * orders\_large.csv
   * products\_large.csv
   * customers\_large.csv
2. Import the datasets into a SQL to a 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.

**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*

**2. INNER JOIN: Customers Who Placed Orders**

**Question:**  
Which customers have placed at least one order?

**Expected Output Columns:**

* *CustomerID, CustomerName, Country, OrderID, OrderDate*

**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*

**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)

**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*

**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*

**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*

**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*