**Assignment 2:** Craft a query using an INNER JOIN to combine 'orders' and 'customers'

tables for customers in a specified region, and a LEFT JOIN to display all customers

including those without orders.

Let's assume you have two tables: **`customers`** and **`orders`**. The **`customers`** table contains information about customers, and the **`orders`** table contains information about orders placed by customers. We'll craft a query that uses an INNER JOIN to combine **`orders`** and **`customers`** tables for customers in a specified region, and a LEFT JOIN to display all customers including those without orders.

**Assumptions**

**- customers table:** Contains columns **`customer\_id`**, **`customer\_name`**, **`email`**, **`city`**, **`region`**, etc.

**- orders table:** Contains columns **`order\_id`**, **`order\_date`**, **`customer\_id`**, **`order\_amount**, etc.

**Query**

SELECT c.customer\_id, c.customer\_name, c.email, c.city, c.region, o.order\_id, o.order\_date, o.order\_amount

FROM customers c

LEFT JOIN orders o ON c.customer\_id = o.customer\_id

WHERE c.region = 'specified\_region';

**Explanation**

**1. INNER JOIN:** The query combines **`customers`** and **`orders**` tables using **`LEFT JOIN`**:

**- `customers c LEFT JOIN orders o`**: This ensures that all rows from **`customers`** are included in the result set, regardless of whether there is a matching row in **`orders`**.

**- `ON c.customer\_id = o.customer\_id`**: Specifies the join condition based on the **`customer\_id column`**.

**2. SELECT statement**:

**-- `SELECT c.customer\_id, c.customer\_name, c.email, c.city, c.region, o.order\_id, o.order\_date, o.order\_amount`**: Specifies the columns to be selected from both tables.

- From **`customers`** (c alias): **`customer\_id`**, **`customer\_name`**, **`email`**, **`city`**, **`region`**.

**-** From **`orders`** (**`o`** alias): **`order\_id`**, **`order\_date`**, **`order\_amount`**.

If a customer doesn't have any orders, the columns from the **`orders`** table (**`o.order\_id`**, **`o.order\_date`**, **`o.order\_amount`**) will be **`NULL`**.

**3. WHERE clause:**

- **`WHERE c.region = 'specified\_region'`**: Filters the results to include only customers from the specified region. Replace **`'specified\_region'`** with the actual region you are interested in.

**Result**

**-** The query will return all customers from the specified region (**`INNER JOIN`** condition) and will include all columns from the **`customers`** table (**`c`**) and corresponding order information (if any) from the **`orders`** table (**`o`**). Customers without orders will have **`NULL`** values in the columns selected from the **`orders`** table.

This structure ensures that you get a comprehensive view of customers, including those who have not placed any orders, while focusing on a specific region as required.