Assignment-2

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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.

Customer and Order Table Data

```
mysql> select * from customers;
+-------------+----------------+----------------------------+---------------+---------+--------------+
| customer_id | customer_name  | email                      | city          | region  | phone        |
+-------------+----------------+----------------------------+---------------+---------+--------------+
|           1 | Alice Johnson  | alice.johnson@example.com  | Los Angeles   | West    | 987-654-3210 |
|           2 | Bob Smith      | bob.smith@example.com      | Chicago       | Midwest | 123-987-6543 |
|           3 | Charlie Brown  | charlie.brown@example.com  | New York      | East    | 456-789-1230 |
|           4 | Diana Prince   | diana.prince@example.com   | San Francisco | West    | 789-123-4567 |
|           5 | Ethan Hunt     | ethan.hunt@example.com     | Miami         | South   | 321-654-9870 |
|           6 | Fiona Green    | fiona.green@example.com    | Seattle       | West    | 654-321-7890 |
+-------------+----------------+----------------------------+---------------+---------+--------------+
6 rows in set (0.00 sec)

mysql> select * from orders;
+----------+-------------+------------+--------------+
| order_id | customer_id | order_date | order_amount |
+----------+-------------+------------+--------------+
|        1 |           1 | 2025-01-01 |       150.00 |
|        2 |           1 | 2025-01-15 |       200.00 |
|        3 |           2 | 2025-01-10 |       300.00 |
|        4 |           4 | 2025-01-12 |       250.00 |
|        5 |           5 | 2025-01-20 |       100.00 |
+----------+-------------+------------+--------------+
5 rows in set (0.00 sec)
```

INNER JOIN Query for Customers in a Specific Region

```
mysql> SELECT
    ->      c.customer_id,
    ->      c.customer_name,
    ->      c.region,
    ->      o.order_id,
    ->      o.order_date,
    ->      o.order_amount
    -> FROM customers c
    -> INNER JOIN orders o
    -> ON c.customer_id = o.customer_id
    -> WHERE c.region = 'West';
+-------------+----------------+--------+----------+------------+--------------+
| customer_id | customer_name  | region | order_id | order_date | order_amount |
+-------------+----------------+--------+----------+------------+--------------+
|           1 | Alice Johnson  | West   |        1 | 2025-01-01 |       150.00 |
|           1 | Alice Johnson  | West   |        2 | 2025-01-15 |       200.00 |
|           4 | Diana Prince   | West   |        4 | 2025-01-12 |       250.00 |
+-------------+----------------+--------+----------+------------+--------------+
3 rows in set (0.00 sec)
```

LEFT JOIN Query to Display All Customers Including Those Without Orders

```
mysql> SELECT
    ->     c.customer_id,
    ->     c.customer_name,
    ->     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;
+-------------+----------------+---------+----------+------------+--------------+
| customer_id | customer_name  | region  | order_id | order_date | order_amount |
+-------------+----------------+---------+----------+------------+--------------+
|           1 | Alice Johnson  | West    |        1 | 2025-01-01 |       150.00 |
|           1 | Alice Johnson  | West    |        2 | 2025-01-15 |       200.00 |
|           2 | Bob Smith      | Midwest |        3 | 2025-01-10 |       300.00 |
|           3 | Charlie Brown  | East    |     NULL | NULL       |         NULL |
|           4 | Diana Prince   | West    |        4 | 2025-01-12 |       250.00 |
|           5 | Ethan Hunt     | South   |        5 | 2025-01-20 |       100.00 |
|           6 | Fiona Green    | West    |     NULL | NULL       |         NULL |
+-------------+----------------+---------+----------+------------+--------------+
7 rows in set (0.00 sec)
```