Name – Vikas Srivastava

Topic – SQL Assignment : 09

Batch - DATACOM+5G Dev

Batch Id - 25SUB4505

User Id – 55984

Email Id – vikas200027@gmail.com

Assignment 9: 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.

Solution :

- Create a Order Table.

```
mysql> CREATE TABLE orders (
    ->     order_id INT PRIMARY KEY,        -- Unique order ID
    ->     customer_id INT,                 -- Foreign key referencing customers table
    ->     order_date DATE,                 -- Date of the order
    ->     order_total DECIMAL(10, 2),      -- Total amount for the order
    ->     FOREIGN KEY (customer_id) REFERENCES customers(customer_id)  -- Foreign key constraint
    -> );
Query OK, 0 rows affected (0.07 sec)
```

1.

```
mysql> -- Insert sample orders into the 'orders' table
mysql> INSERT INTO orders (order_id, customer_id, order_date, order_total)
    -> VALUES
    -> (101, 1, '2023-11-01', 150.00),
    -> (102, 2, '2023-11-02', 200.00),
    -> (103, 1, '2023-11-10', 180.00),
    -> (104, 4, '2023-11-12', 220.00),
    -> (105, 3, '2023-11-15', 130.00);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0
```

2.

- Using an INNER JOIN to combine 'orders' and 'customers' tables for customers in a specified region.

```
mysql> SELECT c.customer_name, c.email, o.order_id, o.order_date, o.order_total
    -> FROM customers c
    -> INNER JOIN orders o
    ->     ON c.customer_id = o.customer_id
    -> WHERE c.city = 'New York';  -- Replace 'New York' with the actual city name
+---------------+-------------------------+----------+------------+-------------+
| customer_name | email                   | order_id | order_date | order_total |
+---------------+-------------------------+----------+------------+-------------+
| John Doe      | john.doe@example.com    |      101 | 2023-11-01 |      150.00 |
| John Doe      | john.doe@example.com    |      103 | 2023-11-10 |      180.00 |
| Emily Davis   | emily.davis@example.com |      104 | 2023-11-12 |      220.00 |
+---------------+-------------------------+----------+------------+-------------+
3 rows in set (0.01 sec)
```

3.

- LEFT JOIN to display all customers including those without orders.

```
mysql> SELECT c.customer_name, c.email, o.order_id, o.order_date, o.order_total
    -> FROM customers c
    -> LEFT JOIN orders o
    ->     ON c.customer_id = o.customer_id;
+---------------+-------------------------+----------+------------+-------------+
| customer_name | email                   | order_id | order_date | order_total |
+---------------+-------------------------+----------+------------+-------------+
| John Doe      | john.doe@example.com    |      101 | 2023-11-01 |      150.00 |
| John Doe      | john.doe@example.com    |      103 | 2023-11-10 |      180.00 |
| Jane Smith    | jane.smith@example.com  |      102 | 2023-11-02 |      200.00 |
| Mike Johnson  | mike.johnson@example.com |      105 | 2023-11-15 |      130.00 |
| Emily Davis   | emily.davis@example.com |      104 | 2023-11-12 |      220.00 |
| David Brown   | david.brown@example.com |     NULL | NULL       |        NULL |
+---------------+-------------------------+----------+------------+-------------+
6 rows in set (0.00 sec)
```

4.