Assignment No.5

Name :- Shailesh Pawar

PRN :- 123B1B230

Solve following queries :

1. Retrieve the total balance for each account type.

Code :-

```
SELECT account_type, SUM(balance) FROM accounts_230
GROUP BY account_type;
```

Output :-

account_type	SUM(balance)
Savings	315000.00
Current	145000.00

2. Count the number of accounts in each branch.

Code :-

```
SELECT b.branch_name, COUNT(a.account_id)
FROM branches_230 b
LEFT JOIN accounts_230 a ON b.branch_id = a.branch_id
GROUP BY b.branch_name;
```

Output :-

branch_name	COUNT(a.account_id)
Main Branch	1
North Branch	1
Tech Branch	1
South Branch	1
West Branch	1
East Branch	1
Central Branch	1
Coastal Branch	1
Metro Branch	1
City Branch	1

3. Find the number of customers in each city.

Code :-

```
SELECT city, COUNT(customer_id) FROM customers_230
GROUP BY city;
```

Output :-

city	COUNT(customer_id)
Mumbai	3
Delhi	3
Bangalore	2
Chennai	2

4. Show the number of loans approved per loan type.

Code :-

```
SELECT loan_type, COUNT(*) FROM loans_230
WHERE status = 'Approved'
```

Output :-

loan_type	COUNT(*)
Home	2
Personal	2
Car	1

5. Find the total number of transactions for each transaction type.

Code :-

```
SELECT transaction_type, COUNT(*) FROM transactions_230
GROUP BY transaction_type;
```

Output :-

transaction_type	COUNT(*)
Deposit	5
Withdrawal	3
Transfer	2

6. Show the customers who do not have a loan.

Code :-

```
SELECT  c.* FROM customers_230 c
LEFT JOIN loans_230 l ON c.customer_id = l.customer_id
WHERE l.loan_id IS NULL;
```

Output :-

```
OK, 0 records retrieved in 0.769ms
```

7. Retrieve customers who have accounts in more than one branch.

Code :-

```
SELECT c.name, COUNT(DISTINCT a.branch_id)
FROM customers_230 c
JOIN accounts_230 a ON c.customer_id = a.customer_id
GROUP BY c.customer_id, c.name
HAVING COUNT(DISTINCT a.branch_id) > 1;
```

Output :-

```
OK, 0 records retrieved in 0.828ms
```

8. Find all accounts that have not had any deposits in the last 3 months.

Code :-

```
SELECT a.* FROM accounts_230 a
LEFT JOIN transactions_230 t ON a.account_id = t.account_id
   AND t.transaction_type = 'Deposit'
   AND t.transaction_date > '2024-12-25'
```

WHERE t.transaction_id IS NULL;

Output :-

account_id	customer_id	balance	account_type	branch_id
102	2	30000.00	Current	2
104	4	15000.00	Current	3
106	6	25000.00	Current	4
108	8	35000.00	Current	7
110	10	40000.00	Current	8

9. Display the account types where the total balance is below ₹25,000.

Code :-

```
SELECT account_type, SUM(balance) FROM accounts_230
GROUP BY account_type
HAVING SUM(balance) < 25000;
```

Output :-

```
OK, 0 records retrieved in 0.76ms
```

10. Find the total balance per account type where the balance is above ₹50,000.

Code :-

```
SELECT account_type, SUM(balance) FROM accounts_230
GROUP BY account_type
HAVING SUM(balance) > 50000;
```

Output :-

account_type	SUM(balance)
Savings	315000.00
Current	145000.00

11. Retrieve the count of transactions made on dates where more than 5 transactions occurred.

Code :-

```
SELECT transaction_date, COUNT(*) FROM transactions_230
```

```
GROUP BY transaction_date
HAVING COUNT(*) > 5;
```

Output :-

```
OK, 0 records retrieved in 0.624ms
```

12. Find the top 3 transaction days with the highest total transaction amount.

Code :-

```
SELECT transaction_date, SUM(amount) FROM transactions_230
GROUP BY transaction_date
ORDER BY SUM(amount) DESC
LIMIT 3;
```

Output :-

```
+------------------+-------------+
| transaction_date | SUM(amount) |
+------------------+-------------+
| 2025-01-20       |    25000.00 |
| 2025-03-01       |    20000.00 |
| 2025-02-15       |    15000.00 |
+------------------+-------------+
```

13. Find customers who have a loan but no account in the bank.

Code :-

```
SELECT c.* FROM customers_230 c
JOIN loans_230 l ON c.customer_id = l.customer_id
LEFT JOIN accounts_230 a ON c.customer_id = a.customer_id
WHERE a.account_id IS NULL;
```

Output :-

```
OK, 0 records retrieved in 0.778ms
```