



CSE370 LAB

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Section : 06

Task1:

```
SELECT customer.customer_name, loan.loan_number
FROM customer
JOIN borrower ON customer.customer_id = borrower.customer_id
JOIN loan ON borrower.loan_number = loan.loan_number
JOIN branch ON loan.branch_name = branch.branch_name
WHERE branch.branch_name = 'Downtown';
```

```
MariaDB [bank]> SELECT customer.customer_name, loan.loan_number
-> FROM customer
-> JOIN borrower ON customer.customer_id = borrower.customer_id
-> JOIN loan ON borrower.loan_number = loan.loan_number
-> JOIN branch ON loan.branch_name = branch.branch_name
-> WHERE branch.branch_name = 'Downtown';
```

```
+-----+-----+
| customer_name | loan_number |
+-----+-----+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+-----+-----+
3 rows in set (0.001 sec)
```

Task2:

```
SELECT c1.customer_name AS Customer1, c2.customer_name AS Customer2,
c1.customer_city AS City
FROM customer c1
JOIN customer c2 ON c1.customer_city = c2.customer_city AND c1.customer_id <
c2.customer_id;
```

```
MariaDB [bank]> SELECT c1.customer_name AS Customer1, c2.customer_name AS Customer2, c1.customer_city AS City
-> FROM customer c1
-> JOIN customer c2 ON c1.customer_city = c2.customer_city AND c1.customer_id < c2.customer_id;
```

```
+-----+-----+-----+
| Customer1 | Customer2 | City   |
+-----+-----+-----+
| Jones     | Hayes     | Harrison |
| Smith     | Curry     | Rye      |
| Lindsay   | Adams     | Pittsfield |
| Turner    | Green     | Stamford |
+-----+-----+-----+
4 rows in set (0.001 sec)
```

Task3:

```
SELECT branch_name, SUM(balance * 0.04) AS Total_Interest
FROM account
GROUP BY branch_name;
```

```
MariaDB [bank]> SELECT branch_name, SUM(balance * 0.04) AS Total_Interest
-> FROM account
-> GROUP BY branch_name;
+-----+-----+
| branch_name | Total_Interest |
+-----+-----+
| Brighton    | 66.00          |
| Downtown    | 20.00          |
| Mianus       | 28.00          |
| Perryridge  | 16.00          |
| Redwood     | 28.00          |
| Round Hill  | 14.00          |
+-----+-----+
6 rows in set (0.000 sec)
```

Task4:

```
SELECT branch_name, account_number, balance
FROM account
WHERE (branch_name, balance) IN (
    SELECT branch_name, MAX(balance)
    FROM account
    GROUP BY branch_name
);
```

```
MariaDB [bank]> SELECT branch_name, account_number, balance
-> FROM account
-> WHERE (branch_name, balance) IN (
->     SELECT branch_name, MAX(balance)
->     FROM account
->     GROUP BY branch_name
-> );
```

branch_name	account_number	balance
Downtown	A-101	500
Perryridge	A-102	400
Brighton	A-201	900
Mianus	A-215	700
Redwood	A-222	700
Round Hill	A-305	350

```
6 rows in set (0.001 sec)
```

Task5:

```
SELECT loan.loan_number, loan.amount, customer.customer_name
FROM loan
JOIN borrower ON loan.loan_number = borrower.loan_number
JOIN customer ON borrower.customer_id = customer.customer_id
ORDER BY loan.amount DESC, loan.loan_number DESC
LIMIT 5;
```

```
MariaDB [bank]> SELECT loan.loan_number, loan.amount, customer.customer_name
-> FROM loan
-> JOIN borrower ON loan.loan_number = borrower.loan_number
-> JOIN customer ON borrower.customer_id = customer.customer_id
-> ORDER BY loan.amount DESC, loan.loan_number DESC
-> LIMIT 5;
```

loan_number	amount	customer_name
L-23	2000	Smith
L-15	1500	Hayes
L-14	1500	Johnson
L-16	1300	Adams
L-17	1000	Jones

```
5 rows in set (0.001 sec)
```

Task6:

```
SELECT DISTINCT customer.customer_name
FROM customer
JOIN depositor ON customer.customer_id = depositor.customer_id
JOIN account ON depositor.account_number = account.account_number
JOIN loan ON account.branch_name = loan.branch_name
WHERE loan.branch_name = 'Perryridge';
```

```
MariaDB [bank]> SELECT DISTINCT customer.customer_name
-> FROM customer
-> JOIN depositor ON customer.customer_id = depositor.customer_id
-> JOIN account ON depositor.account_number = account.account_number
-> JOIN loan ON account.branch_name = loan.branch_name
-> WHERE loan.branch_name = 'Perryridge';
+-----+
| customer_name |
+-----+
| Hayes        |
+-----+
1 row in set (0.001 sec)
```

Task7:

```
SELECT customer.customer_name, SUM(loan.amount) AS total_loan
FROM customer
JOIN borrower ON customer.customer_id = borrower.customer_id
JOIN loan ON borrower.loan_number = loan.loan_number
GROUP BY customer.customer_id
HAVING COUNT(borrower.loan_number) >= 2;
```

```
MariaDB [bank]> SELECT customer.customer_name, SUM(loan.amount) AS total_loan
-> FROM customer
-> JOIN borrower ON customer.customer_id = borrower.customer_id
-> JOIN loan ON borrower.loan_number = loan.loan_number
-> GROUP BY customer.customer_id
-> HAVING COUNT(borrower.loan_number) >= 2;
+-----+-----+
| customer_name | total_loan |
+-----+-----+
| Smith        | 2900      |
+-----+-----+
1 row in set (0.001 sec)
```