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Theory & Lab section: 09

1. select customer_name, loan.loan_number from ((customer inner join borrower on customer.customer_id=borrower.customer_id)inner join loan on loan.loan_number=borrower.loan_number)where branch_name='Downtown';

```
MariaDB [Bank]> select customer_name, loan.loan_number from ((customer inner join borrower on customer.customer_id=borro
wer.customer_id)inner join loan on loan.loan_number=borrower.loan_number)where branch_name='Downtown';
+-----+-----+
| customer_name | loan_number |
+-----+-----+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+-----+-----+
3 rows in set (0.038 sec)
```

2. 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 where 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 custo
mer c1 join customer c2 ON c1.customer_city = c2.customer_city where 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 (0.026 sec)
```

3. Select branch_name as Branch_name,sum(balance * 0.04) as Totalinterest from account group by branch_name;

```
MariaDB [Bank]> Select branch_name as Branch_name,sum(balance * 0.04) as Totalinterest from account group by branch_name
;
+-----+-----+
| Branch_name | Totalinterest |
+-----+-----+
| Brighton    | 66.00         |
| Downtown    | 20.00         |
| Mianus       | 28.00         |
| Perryridge  | 16.00         |
| Redwood     | 28.00         |
| Round Hill  | 14.00         |
+-----+-----+
6 rows in set (0.032 sec)
```

4. Select customer_city, account_number, balance from account a join (Select customer_city, MAX(balance) as max_balance from account join depositor on account.account_number = depositor.account_number join customer on depositor.customer_id = customer.customer_id group by customer_city) b on a.balance = b.max_balance and a.branch_name = (select branch_name from account a2 where a2.account_number = a.account_number) order by customer_city;

```
MariaDB [Bank]> Select customer_city, account_number, balance from account a join (Select customer_city, MAX(balance) as
max_balance from account join depositor on account.account_number = depositor.account_number join customer on depositor
.customer_id = customer.customer_id group by customer_city) b on a.balance = b.max_balance and a.branch_name = (select b
ranch_name from account a2 where a2.account_number = a.account_number) order by customer_city;
```

customer_city	account_number	balance
Harrison	A-217	750
Palo Alto	A-201	900
Pittsfield	A-222	700
Pittsfield	A-215	700
Rye	A-222	700
Rye	A-215	700
Stamford	A-305	350

7 rows in set (0.005 sec)

5. Select l.loan_number, l.amount, c.customer_name From loan l join borrower b on l.loan_number = b.loan_number join customer c ON b.customer_id = c.customer_id order by l.amount desc, l.loan_number desc LIMIT 5;

```
MariaDB [Bank]> Select l.loan_number, l.amount, c.customer_name From loan l join borrower b on l.loan_number = b.loan_nu
mber join customer c ON b.customer_id = c.customer_id order by l.amount desc, l.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 (0.000 sec)

6. SELECT c.customer_name FROM customer c JOIN depositor d ON c.customer_id = d.customer_id JOIN account a ON d.account_number = a.account_number JOIN borrower b ON c.customer_id = b.customer_id JOIN loan l ON b.loan_number = l.loan_number AND l.branch_name = 'Perryridge';

```
MariaDB [Bank]> SELECT c.customer_name FROM customer c JOIN depositor d ON c.customer_id = d.customer_id JOIN account a ON d.account_number = a.account_number JOIN borrower b ON c.customer_id = b.customer_id JOIN loan l ON b.loan_number = l.loan_number AND l.branch_name = 'Perryridge';
+-----+
| customer_name |
+-----+
| Hayes         |
+-----+
1 row in set (0.000 sec)
```

7. SELECT c.customer_name, SUM(l.amount) AS total_loan FROM customer c JOIN borrower b ON c.customer_id = b.customer_id JOIN loan l ON b.loan_number = l.loan_number group by c.customer_id HAVING COUNT(b.loan_number) >= 2;

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