1. Select customer.customer_name, loan.loan_number from customer, loan, borrower where borrower.customer_id=customer.customer_id and borrower.loan_number= loan.loan_number and loan.branch_name= 'Downtown';

```
MariaDB [lab4]> Select customer.customer_name, loan.loan_number from customer, loan, borrower where borrower.customer_id
=customer.customer_id and  borrower.loan_number= loan.loan_number and loan.branch_name= 'Downtown';
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+---------------+-------------+
3 rows in set (0.015 sec)
```

2. Select a.customer_name as customer1, b.customer_name as customer2 , a.customer_city from customer a,customer b where a.customer_city=b.customer_city and a.customer_name!=b.customer_name and a.customer_id<b.customer_id ;

```
MariaDB [lab4]> Select  a.customer_name as customer1, b.customer_name as customer2 , a.customer_city from customer a,cus
tomer b where a.customer_city=b.customer_city and a.customer_name!=b.customer_name and a.customer_id<b.customer_id ;
+-----------+-----------+---------------+
| customer1 | customer2 | customer_city |
+-----------+-----------+---------------+
| Jones     | Hayes     | Harrison      |
| Smith     | Curry     | Rye           |
| Lindsay   | Adams     | Pittsfield    |
| Turner    | Green     | Stamford      |
+-----------+-----------+---------------+
4 rows in set (0.032 sec)
```

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

```
MariaDB [lab4]> Select account.branch_name, sum(account.balance *0.04) as total_interest from account group by account.b
ranch_name;h
+-------------+----------------+
| 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 (0.004 sec)
```

4. Select a.account_number,a.balance,b.branch_city from account a inner join branch b on b.branch_name = a.branch_name where a.balance=(select max(c.balance) from account c inner join branch d on d.branch_name = c.branch_name and d.branch_city=b.branch_city) group by b.branch_city;

```
MariaDB [lab4]> Select a.account_number,a.balance,b.branch_city from account a inner join branch b on b.branch_name = a.
branch_name where a.balance=( select max(c.balance) from account c inner join branch d on d.branch_name = c.branch_name
and d.branch_city=b.branch_city) group by b.branch_city;
+----------------+---------+-------------+
| account_number | balance | branch_city |
+----------------+---------+-------------+
| A-201          |     900 | Brooklyn    |
| A-215          |     700 | Horseneck   |
| A-222          |     700 | Palo Alto   |
+----------------+---------+-------------+
3 rows in set (0.001 sec)
```

5. Select * from (Select loan.loan_number as loan_number, loan.amount as amount,customer.customer_name from loan,borrower,customer where borrower.loan_number=loan.loan_number and borrower.customer_id=customer.customer_id order by loan.amount desc limit 5) as r order by amount asc, loan_number desc;

```
MariaDB [lab4]> Select * from (Select loan.loan_number as loan_number, loan.amount as amount,customer.customer_name from
 loan,borrower,customer where borrower.loan_number=loan.loan_number and borrower.customer_id=customer.customer_id order
by loan.amount  desc limit 5)as r order by amount  asc, loan_number desc;
+-------------+--------+---------------+
| loan_number | amount | customer_name |
+-------------+--------+---------------+
| L-17        |   1000 | Jones         |
| L-16        |   1300 | Adams         |
| L-15        |   1500 | Hayes         |
| L-14        |   1500 | Johnson       |
| L-23        |   2000 | Smith         |
+-------------+--------+---------------+
5 rows in set (0.001 sec)
```

6. Select customer.customer_name from customer, loan, borrower, account where loan.branch_name=account.branch_name and loan.loan_number=borrower.loan_number and borrower.customer_id=customer.customer_id and account.branch_name='Perryridge' and loan.branch_name='Perryridge' group by account.branch_name;

```
MariaDB [lab4]> Select customer.customer_name from customer, loan, borrower, account where loan.branch_name=account.bran
ch_name and loan.loan_number=borrower.loan_number and borrower.customer_id=customer.customer_id and account.branch_name=
'Perryridge'  and loan.branch_name='Perryridge' group by account.branch_name;
+---------------+
| customer_name |
+---------------+
| Hayes         |
+---------------+
```

7. Select customer.customer_name, sum(loan.amount)as total_loan from loan,borrower,customer where loan.loan_number=borrower.loan_number and borrower.customer_id=customer.customer_id group by customer.customer_id having count(*)>1;

```
MariaDB [lab4]> Select customer.customer_name, sum(loan.amount)as total_loan from loan,borrower,customer where loan.loan
_number=borrower.loan_number and borrower.customer_id=customer.customer_id group by customer.customer_id having count(*)
>1;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.003 sec)
```