TASk1

SELECT c.customer_name, l.loan_number FROM ((customer as c inner join borrower as b
on c.customer_id = b.customer_id) inner join loan as l on l.loan_number = b.loan_number)
WHERE l.branch_name = 'Downtown';

```
MariaDB [Bank_22201660]> SELECT c.customer_name, l.loan_number FROM ((customer as c inner join
    -> on c.customer_id = b.customer_id) inner join loan as l on l.loan_number = b.loan_number
    -> WHERE l.branch_name = 'Downtown';
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+---------------+-------------+
```

Task2

SELECT c1.customer_name as Customers1, c2.customer_name as Customer2,
-> c1.customer_city as City FROM customer as c1 inner join customer as c2 on
-> c1.customer_city = c2.customer_city and c1.customer_id < c2.customer_id
-> ORDER BY c1.customer_name, c2.customer_name, c1.customer_city;

```
GROUP BY c.customer_city    at line 3
MariaDB [Bank_22201660]> SELECT c1.customer_name as Customers1, c2.customer_name as Customer2, c1.customer
    -> as City FROM customer as c1 inner join customer as c2 on
    -> c1.customer_city = c2.customer_city and c1.customer_id < c2.customer_id
    -> ORDER BY c1.customer_name, c2.customer_name, c1.customer_city;
+------------+-----------+------------+
| Customers1 | Customer2 | City       |
+------------+-----------+------------+
| Jones      | Hayes     | Harrison   |
| Lindsay    | Adams     | Pittsfield |
| Smith      | Curry     | Rye        |
| Turner     | Green     | Stamford   |
+------------+-----------+------------+
4 rows in set (0.002 sec)
```

Task3

SELECT a.branch_name, sum(a.balance * 0.04) as Total_Interest FROM account
-> as a GROUP BY a.branch_name;

```
MariaDB [Bank_22201660]> SELECT a.branch_name, sum(a.balance * 0.04) as Total_Interest FROM account as a
    -> GROUP BY a.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 (0.001 sec)
```

Task4

SELECT c.customer_city, MAX(a.balance) as max_balance, a.account_number
-> FROM ((customer as c inner join depositor as d on c.customer_id =
-> d.customer_id)inner join account as a on a.account_number =
-> d.account_number) GROUP BY c.customer_city;

```
MariaDB [Bank_22201660]> SELECT c.customer_city, MAX(a.balance) as max_balance, a.account_number
    -> FROM ((customer as c inner join depositor as d on
    -> c.customer_id = d.customer_id)inner join account as a on a.account_number = d.account_number)
    -> GROUP BY c.customer_city;
+---------------+-------------+----------------+
| customer_city | max_balance | account_number |
+---------------+-------------+----------------+
| Harrison      |         750 | A-217          |
| Palo Alto     |         900 | A-101          |
| Pittsfield    |         700 | A-222          |
| Rye           |         700 | A-215          |
| Stamford      |         350 | A-305          |
+---------------+-------------+----------------+
5 rows in set (0.001 sec)
```

Task5

SELECT loan_number, loan_amount, customer_name FROM (SELECT
-> l.loan_number, l.amount as loan_amount, c.customer_name
-> FROM ((loan as l inner join borrower as b on l.loan_number = b.loan_number)
-> inner join customer as c on c.customer_id = b.customer_id) ORDER BY
-> l.amount DESC, l.loan_number desc limit 5) as top_loans ORDER BY
-> loan_amount asc, loan_number DESC;

```
MariaDB [Bank_22201660]> SELECT loan_number, loan_amount, customer_name FROM (SELECT l.loan_number, l.amount as loan_amount, c.customer_name
    -> FROM ((loan as l inner join borrower as b on l.loan_number = b.loan_number) inner join customer as c
    -> on c.customer_id = b.customer_id) ORDER BY l.amount DESC, l.loan_number desc limit 5) as top_loans
    -> ORDER BY loan_amount asc, loan_number DESC;
+-------------+-------------+---------------+
| loan_number | loan_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)
```

Task6

SELECT c.customer_name FROM ((customer as c inner join depositor as d on
-> c.customer_id = d.customer_id) inner join account as a on
-> d.account_number = a.account_number)WHERE a.branch_name = 'Perryridge'
-> and c.customer_id in (SELECT customer_id FROM borrower WHERE
-> loan_number in (SELECT loan_number FROM loan WHERE branch_name =
-> 'Perryridge'));

```
MariaDB [Bank_22201660]>
MariaDB [Bank_22201660]> SELECT c.customer_name FROM ((customer as c inner join depositor as d on c.customer_id = d.customer_id)
    -> inner join account as a on d.account_number = a.account_number)WHERE a.branch_name = 'Perryridge' and c.customer_id in
    -> (SELECT customer_id FROM borrower WHERE loan_number in (SELECT loan_number FROM loan WHERE branch_name = 'Perryridge'));
+---------------+
| customer_name |
+---------------+
| Hayes         |
+---------------+
1 row in set (0.001 sec)
```

Task7

SELECT c.customer_name, sum(l.amount) as total_loan FROM ((customer as c
-> inner join borrower as b
-> on c.customer_id = b.customer_id) inner join loan as l on b.loan_number =
-> l.loan_number) GROUP BY c.customer_id having count(l.loan_number) >= 2;

```
MariaDB [Bank_22201660]> SELECT c.customer_name, sum(l.amount) as total_loan FROM ((customer as c inner join borrower as b
    -> on c.customer_id = b.customer_id) inner join loan as l on b.loan_number = l.loan_number)
    -> GROUP BY c.customer_id having count(l.loan_number) >= 2;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.001 sec)

MariaDB [Bank_22201660]>
```