Table

```
MariaDB [cse370_a3]> select * from customer;
+-------------+---------------+-----------------+---------------+
| customer_id | customer_name | customer_street | customer_city |
+-------------+---------------+-----------------+---------------+
| C-101       | Jones         | Main            | Harrison      |
| C-201       | Smith         | North           | Rye           |
| C-211       | Hayes         | Main            | Harrison      |
| C-212       | Curry         | North           | Rye           |
| C-215       | Lindsay       | Park            | Pittsfield    |
| C-220       | Turner        | Putnam          | Stamford      |
| C-222       | Williams      | Nassau          | Princeton     |
| C-225       | Adams         | Spring          | Pittsfield    |
| C-226       | Johnson       | Alma            | Palo Alto     |
| C-233       | Glenn         | Sand Hill       | Woodside      |
| C-234       | Brooks        | Senator         | Brooklyn      |
| C-255       | Green         | Walnut          | Stamford      |
+-------------+---------------+-----------------+---------------+
12 rows in set (0.001 sec)

MariaDB [cse370_a3]> select * from branch;
+-------------+-------------+---------+
| branch_name | branch_city | assets  |
+-------------+-------------+---------+
| Brighton    | Brooklyn    | 7100000 |
| Downtown    | Brooklyn    | 9000000 |
| Mianus      | Horseneck   |  400000 |
| North Town  | Rye         | 3700000 |
| Perryridge  | Horseneck   | 1700000 |
| Pownal      | Bennington  |  300000 |
| Redwood     | Palo Alto   | 2100000 |
| Round Hill  | Horseneck   | 8000000 |
+-------------+-------------+---------+
8 rows in set (0.001 sec)

MariaDB [cse370_a3]> select * from account;
+-------------+----------------+---------+
| branch_name | account_number | balance |
+-------------+----------------+---------+
| Downtown    | A-101          |     500 |
| Perryridge  | A-102          |     400 |
| Brighton    | A-201          |     900 |
| Mianus      | A-215          |     700 |
| Brighton    | A-217          |     750 |
| Redwood     | A-222          |     700 |
| Round Hill  | A-305          |     350 |
+-------------+----------------+---------+
7 rows in set (0.000 sec)
```

```
MariaDB [cse370_a3]> select * from loan;
+-------------+-------------+--------+
| loan_number | branch_name | amount |
+-------------+-------------+--------+
| L-11        | Round Hill   |    900 |
| L-14        | Downtown     |   1500 |
| L-15        | Perryridge   |   1500 |
| L-16        | Perryridge   |   1300 |
| L-17        | Downtown     |   1000 |
| L-23        | Redwood      |   2000 |
| L-93        | Mianus       |    500 |
+-------------+-------------+--------+
7 rows in set (0.000 sec)

MariaDB [cse370_a3]> select * from depositor;
+-------------+----------------+
| customer_id | account_number |
+-------------+----------------+
| C-101       | A-217          |
| C-201       | A-215          |
| C-211       | A-102          |
| C-215       | A-222          |
| C-220       | A-305          |
| C-226       | A-101          |
| C-226       | A-201          |
+-------------+----------------+
7 rows in set (0.000 sec)

MariaDB [cse370_a3]> select * from borrower;
+-------------+-------------+
| customer_id | loan_number |
+-------------+-------------+
| C-101       | L-17        |
| C-201       | L-11        |
| C-201       | L-23        |
| C-211       | L-15        |
| C-212       | L-93        |
| C-222       | L-17        |
| C-225       | L-16        |
| C-226       | L-14        |
+-------------+-------------+
8 rows in set (0.000 sec)
```

Answer to the question no 1

```
MariaDB [cse370_a3]> SELECT C.customer_name, B.loan_number FROM customer C, borrower B, loan L
    -> WHERE C.customer_id=B.customer_id AND B.loan_number=L.loan_number
    -> AND L.branch_name= 'Downtown';
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+---------------+-------------+
3 rows in set (0.001 sec)
```

Query: SELECT C.customer_name, B.loan_number FROM customer C, borrower B, loan L
     -> WHERE C.customer_id=B.customer_id AND B.loan_number=L.loan_number
     -> AND L.branch_name= 'Downtown';

Answer to the question no 2

```
MariaDB [cse370_a3]> SELECT C1.customer_name as customer_1 , C2.customer_name as customer_2, C1.customer_city as city
    -> FROM customer C1, customer C2
    -> WHERE C1.customer_id != C2.customer_id AND C1.customer_city=C2.customer_city
    -> GROUP BY C1.customer_city;
+------------+------------+------------+
| customer_1 | customer_2 | city       |
+------------+------------+------------+
| Hayes      | Jones      | Harrison   |
| Adams      | Lindsay    | Pittsfield |
| Curry      | Smith      | Rye        |
| Green      | Turner     | Stamford   |
+------------+------------+------------+
4 rows in set (0.001 sec)
```

Query: SELECT C1.customer_name as customer_1 , C2.customer_name as customer_2,
C1.customer_city as city
     -> FROM customer C1, customer C2
     -> WHERE C1.customer_id != C2.customer_id AND C1.customer_city=C2.customer_city
     -> GROUP BY C1.customer_city;

Answer to the question no 3

```
MariaDB [cse370_a3]> SELECT branch_name, SUM(balance*(4/100)) AS total_interest FROM account GROUP BY branch_name;
+-------------+----------------+
| branch_name | total_interest |
+-------------+----------------+
| Brighton    |        66.0000 |
| Downtown    |        20.0000 |
| Mianus      |        28.0000 |
| Perryridge  |        16.0000 |
| Redwood     |        28.0000 |
| Round Hill  |        14.0000 |
+-------------+----------------+
6 rows in set (0.003 sec)
```

Query: SELECT branch_name, SUM(balance*(4/100)) AS total_interest FROM account
GROUP BY branch_name;

Answer to the question no 4

```
MariaDB [cse370_a3]> SELECT D.account_number, C.customer_city FROM customer C, depositor D, account A
    -> WHERE C.customer_id=D.customer_id AND D.account_number=A.account_number AND
    -> A.balance= (SELECT MAX(A.balance)) GROUP BY C.customer_city;
+----------------+---------------+
| account_number | customer_city |
+----------------+---------------+
| A-217          | Harrison      |
| A-101          | Palo Alto     |
| A-222          | Pittsfield    |
| A-215          | Rye           |
| A-305          | Stamford      |
+----------------+---------------+
5 rows in set (0.003 sec)
```

Query:

SELECT D.account_number, C.customer_city FROM customer C, depositor D, account A
-> WHERE C.customer_id=D.customer_id AND D.account_number=A.account_number AND
-> A.balance= (SELECT MAX(A.balance)) GROUP BY C.customer_city;

Answer to the question no 5

```
MariaDB [cse370_a3]> SELECT Y.*FROM (SELECT L.loan_number, L.amount, C.customer_name FROM customer C, loan L, borrower B WHERE C.customer_id=B.customer_id AND B.loan_number=L.loan_number ORDER BY L.amount DESC
LIMIT 5) AS Y ORDER BY Y.amount, Y.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 (0.003 sec)
```

Query: SELECT Y.*FROM (SELECT L.loan_number, L.amount, C.customer_name FROM customer C, loan L, borrower B WHERE C.customer_id=B.customer_id AND B.loan_number=L.loan_number ORDER BY L.amount DESC LIMIT 5) AS Y ORDER BY Y.amount, Y.loan_number DESC;

Answer to the question no 6

```
MariaDB [cse370_a3]> SELECT C.customer_name FROM Customer C, depositor D, account A, borrower B, loan L WHERE C.customer_id=D.customer_id AND D.account_number=A.account_number AND C.customer_id=B.customer_id A
ND B.loan_number=L.loan_number AND L.branch_name='Perryridge' AND A.account_number IN (SELECT account_number FROM account);
+---------------+
| customer_name |
+---------------+
| Hayes         |
+---------------+
1 row in set (0.002 sec)
```

Query: SELECT C.customer_name FROM Customer C, depositor D, account A, borrower B, loan L WHERE C.customer_id=D.customer_id AND D.account_number=A.account_number AND C.customer_id=B.customer_id AND B.loan_number=L.loan_number AND L.branch_name='Perryridge' AND A.account_number IN (SELECT account_number FROM account);

Answer to the question no 7

```
MariaDB [cse370_a3]> SELECT C.customer_name,SUM(L.amount) AS total_loan FROM customer C, borrower B, loan L WHERE C.customer_id=B.customer_id AND B.loan_number=L.loan_number GROUP BY C.customer_name HAVING COU
NT(B.loan_number)>=2;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.001 sec)
```

Query: SELECT C.customer_name,SUM(L.amount) AS total_loan FROM customer C,
borrower B, loan L WHERE C.customer_id=B.customer_id AND
B.loan_number=L.loan_number GROUP BY C.customer_name HAVING
COUNT(B.loan_number)>=2;