CSE370

Database system

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Section: 08

Lab assignment: 03

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<p align="center">*Answer to the question no 1*</p>

Query:

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

```
MariaDB [23241108_bank]> select customer.customer_name, loan.loan_number from ((customer inner join borrower on customer
.customer_id = borrower.customer_id ) inner join loan on borrower.loan_number = loan.loan_number) where loan.branch_name
 = "Downtown";
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| Johnson       | L-14        |
| Jones         | L-17        |
| Williams      | L-17        |
+---------------+-------------+
3 rows in set (0.000 sec)
```

<p align="center">*Answer to the question no 2*</p>

Query:

select C1.customer_name as Customer1, C2.customer_name as Customer2, C1.customer_city as City from (customer C1 inner join customer C2 on C1.customer_city = C2.customer_city and C1.customer_id < C2.customer_id);

```
MariaDB [23241108_bank]> select C1.customer_name as Customer1, C2.customer_name as Customer2, C1.customer_city as City from (customer C1 inner join  customer C2 on C1.customer_city = C2.cu
stomer_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)
```

<p align="center">*Answer to the question no 3*</p>

Query:

select branch.branch_name as Branch_Name, sum(account.balance*0.04) as Total_Interest
from branch inner join account on branch.branch_name = account.branch_name group by branch.branch_name;

```
MariaDB [23241108_bank]> select branch.branch_name as Branch_Name, sum(account.balance*0.04) as Total_Interest
    -> from branch inner join account on branch.branch_name = account.branch_name group by branch.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)
```

Answer to the question no 4

Query:

select b.branch_city, a.account_number, a.balance from account a inner join branch b on a.branch_name = b.branch_name where a.balance = (select max(a2.balance) from account a2 inner join branch b2 on a2.branch_name = b2.branch_name where b2.branch_city = b.branch_city) order by b.branch_city;

```
MariaDB [23241108_bank]> select b.branch_city, a.account_number, a.balance from account a inner join branch b on a.branch_n
ame = b.branch_name where a.balance = ( select max(a2.balance) from account a2 inner join branch b2 on a2.branch_name = b2.
branch_name where b2.branch_city = b.branch_city ) order by b.branch_city;
+-------------+----------------+---------+
| branch_city | account_number | balance |
+-------------+----------------+---------+
| Brooklyn    | A-201          |     900 |
| Horseneck   | A-215          |     700 |
| Palo Alto   | A-222          |     700 |
+-------------+----------------+---------+
3 rows in set (0.001 sec)
```

Answer to the question no 5

Query:

select * from (select loan.loan_number, loan.amount, customer.customer_name from loan inner join borrower on loan.loan_number = borrower.loan_number inner join customer on customer.customer_id = borrower.customer_id order by amount desc limit 5) as output1 order by amount, loan_number desc;

```
MariaDB [23241108_bank]> select * from ( select loan.loan_number, loan.amount, customer.customer_name from loan inner join
borrower on loan.loan_number = borrower.loan_number inner join customer on customer.customer_id = borrower.customer_id orde
r by amount desc limit 5 ) as output1 order by amount, 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)
```

Answer to the question no 6

Query:

select C.customer_name from ((customer C inner join depositor D ON C.customer_id = D.customer_id) inner join account A on D.account_number = A.account_number) where a.branch_name = 'Perryridge';

```
MariaDB [23241108_bank]> select  C.customer_name from ((customer C inner join depositor D ON C.customer_id = D.customer_id)
 inner join account A on  D.account_number = A.account_number )  where a.branch_name = 'Perryridge';
+---------------+
| customer_name |
+---------------+
| Hayes         |
+---------------+
1 row in set (0.007 sec)
```

Query:

select C.customer_name, sum(L.amount) as total_loan from ((customer C inner join borrower B on C.customer_id = B.customer_id) inner join loan L on B.loan_number = L.loan_number) group by C.customer_name having count(*) >= 2;

```
MariaDB [23241108_bank]> select C.customer_name, sum(L.amount) as total_loan from ((customer C inner join borrower B on C.c
ustomer_id = B.customer_id) inner join loan L on B.loan_number = L.loan_number) group by C.customer_name having count(*) >=
 2;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.001 sec)
```