DBMS Lab-05

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```
mysql> use lab05;
Database changed
mysql> show tables;
+----------------+
| Tables_in_lab05 |
+----------------+
| account        |
| borrower       |
| branch         |
| customer       |
| depositor      |
| loan           |
+----------------+
6 rows in set (0.01 sec)

mysql> select customer_name from borrower union select customer_name from depositor;
+---------------+
| customer_name |
+---------------+
| Adams         |
| Curry         |
| Hayes         |
| Jackson       |
| Jones         |
| Smith         |
| Williams      |
| Johnson       |
| Lindsay       |
| Turner        |
+---------------+
10 rows in set (0.04 sec)
```

```
mysql> select depositor.customer_name, account_number, loan_number from depositor inner join borrower on depositor.customer_name = borrower.customer_name;
+---------------+----------------+-------------+
| customer_name | account_number | loan_number |
+---------------+----------------+-------------+
| Hayes         | A-102          | L-15        |
| Jones         | A-217          | L-17        |
| Smith         | A-215          | L-11        |
+---------------+----------------+-------------+
3 rows in set (0.00 sec)

mysql> select borrower.customer_name from borrower left join depositor on borrower.customer_name = depositor.customer_name where depositor.customer_name is null;
+---------------+
| customer_name |
+---------------+
| Adams         |
| Curry         |
| Jackson       |
| Williams      |
+---------------+
4 rows in set (0.00 sec)
```

```
mysql> select s.branch_name from branch as s, branch as t where s.assets > t.assets and t.branch_city like("brooklyn");
+-------------+
| branch_name |
+-------------+
| Downtown    |
| Round Hill  |
+-------------+
2 rows in set (0.00 sec)
```

```
mysql> select branch_name from branch where assets > some(select assets from branch where branch_city like("brooklyn"));
+-------------+
| branch_name |
+-------------+
| Downtown    |
| Round Hill  |
+-------------+
2 rows in set (0.00 sec)

mysql>
```

```
mysql> select branch_name, avg(balance) from account group by branch_name having avg(balance) >= all(select avg(balance) from account group by branch_name);
+-------------+--------------+
| branch_name | avg(balance) |
+-------------+--------------+
| Brighton    |    825.0000  |
+-------------+--------------+
1 row in set (0.00 sec)
```

```
mysql> select depositor.customer_name from depositor where exists(select customer_name from borrower where depositor.customer_name = borrower.customer_name);
+---------------+
| customer_name |
+---------------+
| Hayes         |
| Jones         |
| Smith         |
+---------------+
3 rows in set (0.00 sec)

mysql> select * from loan natural join borrower;
+-------------+-------------+--------+---------------+
| loan_number | branch_name | amount | customer_name |
+-------------+-------------+--------+---------------+
| L-16        | Perryridge  |  1300  | Adams         |
| L-93        | Mianus      |   500  | Curry         |
| L-15        | Perryridge  |  1500  | Hayes         |
| L-14        | Downtown    |  1500  | Jackson       |
| L-17        | Downtown    |  1000  | Jones         |
| L-11        | Round Hill  |   900  | Smith         |
| L-17        | Downtown    |  1000  | Williams      |
+-------------+-------------+--------+---------------+
7 rows in set (0.03 sec)
```

```
mysql> select * from loan inner join borrower using(loan_number);
+-------------+-------------+--------+---------------+
| loan_number | branch_name | amount | customer_name |
+-------------+-------------+--------+---------------+
| L-16        | Perryridge  |  1300  | Adams         |
| L-93        | Mianus      |   500  | Curry         |
| L-15        | Perryridge  |  1500  | Hayes         |
| L-14        | Downtown    |  1500  | Jackson       |
| L-17        | Downtown    |  1000  | Jones         |
| L-11        | Round Hill  |   900  | Smith         |
| L-17        | Downtown    |  1000  | Williams      |
+-------------+-------------+--------+---------------+
7 rows in set (0.00 sec)
```

```
mysql> select * from loan natural right outer join borrower;
+-------------+---------------+-------------+--------+
| loan_number | customer_name | branch_name | amount |
+-------------+---------------+-------------+--------+
| L-16        | Adams         | Perryridge  |   1300 |
| L-93        | Curry         | Mianus      |    500 |
| L-15        | Hayes         | Perryridge  |   1500 |
| L-14        | Jackson       | Downtown    |   1500 |
| L-17        | Jones         | Downtown    |   1000 |
| L-11        | Smith         | Round Hill  |    900 |
| L-17        | Williams      | Downtown    |   1000 |
+-------------+---------------+-------------+--------+
7 rows in set (0.00 sec)
```

```
mysql> select * from loan right join borrower using (loan_number);
+-------------+---------------+-------------+--------+
| loan_number | customer_name | branch_name | amount |
+-------------+---------------+-------------+--------+
| L-16        | Adams         | Perryridge  |   1300 |
| L-93        | Curry         | Mianus      |    500 |
| L-15        | Hayes         | Perryridge  |   1500 |
| L-14        | Jackson       | Downtown    |   1500 |
| L-17        | Jones         | Downtown    |   1000 |
| L-11        | Smith         | Round Hill  |    900 |
| L-17        | Williams      | Downtown    |   1000 |
+-------------+---------------+-------------+--------+
7 rows in set (0.00 sec)

mysql> select * from loan natural left outer join borrower;
+-------------+-------------+--------+---------------+
| loan_number | branch_name | amount | customer_name |
+-------------+-------------+--------+---------------+
| L-11        | Round Hill  |    900 | Smith         |
| L-14        | Downtown    |   1500 | Jackson       |
| L-15        | Perryridge  |   1500 | Hayes         |
| L-16        | Perryridge  |   1300 | Adams         |
| L-17        | Downtown    |   1000 | Williams      |
| L-17        | Downtown    |   1000 | Jones         |
| L-23        | Redwood     |   2000 | NULL          |
| L-93        | Mianus      |    500 | Curry         |
+-------------+-------------+--------+---------------+
8 rows in set (0.00 sec)

mysql> select * from loan left join borrower using (loan_number);
+-------------+-------------+--------+---------------+
| loan_number | branch_name | amount | customer_name |
+-------------+-------------+--------+---------------+
| L-11        | Round Hill  |    900 | Smith         |
| L-14        | Downtown    |   1500 | Jackson       |
| L-15        | Perryridge  |   1500 | Hayes         |
| L-16        | Perryridge  |   1300 | Adams         |
| L-17        | Downtown    |   1000 | Williams      |
| L-17        | Downtown    |   1000 | Jones         |
| L-23        | Redwood     |   2000 | NULL          |
| L-93        | Mianus      |    500 | Curry         |
+-------------+-------------+--------+---------------+
```

```
mysql> select * from loan full join borrower;
+-------------+-------------+--------+---------------+-------------+
| loan_number | branch_name | amount | customer_name | loan_number |
+-------------+-------------+--------+---------------+-------------+
| L-93        | Mianus      |    500 | Adams         | L-16        |
| L-23        | Redwood     |   2000 | Adams         | L-16        |
| L-17        | Downtown    |   1000 | Adams         | L-16        |
| L-16        | Perryridge  |   1300 | Adams         | L-16        |
| L-15        | Perryridge  |   1500 | Adams         | L-16        |
| L-14        | Downtown    |   1500 | Adams         | L-16        |
| L-11        | Round Hill  |    900 | Adams         | L-16        |
| L-93        | Mianus      |    500 | Curry         | L-93        |
| L-23        | Redwood     |   2000 | Curry         | L-93        |
| L-17        | Downtown    |   1000 | Curry         | L-93        |
| L-16        | Perryridge  |   1300 | Curry         | L-93        |
| L-15        | Perryridge  |   1500 | Curry         | L-93        |
| L-14        | Downtown    |   1500 | Curry         | L-93        |
| L-11        | Round Hill  |    900 | Curry         | L-93        |
| L-93        | Mianus      |    500 | Hayes         | L-15        |
| L-23        | Redwood     |   2000 | Hayes         | L-15        |
| L-17        | Downtown    |   1000 | Hayes         | L-15        |
| L-16        | Perryridge  |   1300 | Hayes         | L-15        |
| L-15        | Perryridge  |   1500 | Hayes         | L-15        |
| L-14        | Downtown    |   1500 | Hayes         | L-15        |
| L-11        | Round Hill  |    900 | Hayes         | L-15        |
| L-93        | Mianus      |    500 | Jackson       | L-14        |
| L-23        | Redwood     |   2000 | Jackson       | L-14        |
| L-17        | Downtown    |   1000 | Jackson       | L-14        |
| L-16        | Perryridge  |   1300 | Jackson       | L-14        |
| L-15        | Perryridge  |   1500 | Jackson       | L-14        |
| L-14        | Downtown    |   1500 | Jackson       | L-14        |
| L-11        | Round Hill  |    900 | Jackson       | L-14        |
| L-93        | Mianus      |    500 | Jones         | L-17        |
| L-23        | Redwood     |   2000 | Jones         | L-17        |
| L-17        | Downtown    |   1000 | Jones         | L-17        |
| L-16        | Perryridge  |   1300 | Jones         | L-17        |
| L-15        | Perryridge  |   1500 | Jones         | L-17        |
| L-14        | Downtown    |   1500 | Jones         | L-17        |
| L-11        | Round Hill  |    900 | Jones         | L-17        |
| L-93        | Mianus      |    500 | Smith         | L-11        |
| L-23        | Redwood     |   2000 | Smith         | L-11        |
| L-17        | Downtown    |   1000 | Smith         | L-11        |
| L-16        | Perryridge  |   1300 | Smith         | L-11        |
| L-15        | Perryridge  |   1500 | Smith         | L-11        |
| L-14        | Downtown    |   1500 | Smith         | L-11        |
| L-11        | Round Hill  |    900 | Smith         | L-11        |
| L-93        | Mianus      |    500 | Williams      | L-17        |
```

Thank you