

Labexam

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XAMPP for Windows - mysql -u root -p -h localhost
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]> create database banking;
Query OK, 1 row affected (0.099 sec)

MariaDB [(none)]> use banking;
Database changed
MariaDB [banking]> create table branch(branch_name varchar(25) not null primary key,branch_city varchar(30),assets integer);
Query OK, 0 rows affected (1.448 sec)

MariaDB [banking]> create table customer(customer_id varchar(25) not null primary key,customer_name varchar(20),customer_city varchar(20));
Query OK, 0 rows affected (1.092 sec)

MariaDB [banking]> create table loan(loan_number varchar(20) not null primary key,
-> branch_name varchar(20),amount int(20),
-> foreign key(branch_name) references branch(branch_name));
Query OK, 0 rows affected (1.012 sec)

MariaDB [banking]> drop table loan;
Query OK, 0 rows affected (0.830 sec)

MariaDB [banking]> create table loan(loan_number int(20) primary key,
-> branch_name varchar(20),amount int(20),
-> foreign key(branch_name) references branch(branch_name));
Query OK, 0 rows affected (0.446 sec)

MariaDB [banking]> create table borrower(customer_id varchar(20) references customer(customer_id),
-> loan_number int(20) references loan(loan_number));
Query OK, 0 rows affected (0.422 sec)

MariaDB [banking]> create table account(account_number int(20) primary key,branch_name varchar(20) references branch(branch_name),
-> balance int(20));
Query OK, 0 rows affected (0.564 sec)

MariaDB [banking]> create table depositor(customer_id varchar(20) references customer(customer_id),
-> account_number int(20) references account(account_number ));
Query OK, 0 rows affected (0.489 sec)

MariaDB [banking]>
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XAMPP for Windows - mysql -u root -p -h localhost
MariaDB [banking]> select * from branch;
+-----+-----+-----+
| branch_name | branch_city | assets |
+-----+-----+-----+
| chkd branch | chavakadu    | 90000  |
| kdlr branch | kodungallur  | 180000 |
| ksd branch  | kandassankadavu | 95000  |
| mnir branch | manalur      | 280000 |
| mumb branch | mumbai       | 180000 |
| tkim branch | talikulam    | 90000  |
| tpr branch  | tripayar     | 180000 |
+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [banking]> select * from customer;
+-----+-----+-----+
| customer_id | customer_name | customer_city |
+-----+-----+-----+
| cust001     | Refeena       | kandassankadavu |
| cust002     | Rubena       | kodungallur    |
| cust003     | veena        | manalur        |
| cust004     | meena        | talikulam      |
| cust005     | sumi         | tripayar       |
| cust006     | binny        | chavakad       |
| cust007     | anju         | mumbai         |
+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [banking]> select * from loan;
+-----+-----+-----+
| loan_number | branch_name | amount |
+-----+-----+-----+
| 9871        | tpr branch  | 5100   |
| 9872        | tkim branch | 500    |
| 9873        | mnir branch | 500    |
| 9874        | ksd branch  | 6000   |
| 9875        | kdlr branch | 5000   |
| 9876        | chkd branch | 10000  |
+-----+-----+-----+
6 rows in set (0.000 sec)

MariaDB [banking]>
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XAMPP for Windows - mysql -u root -p -h localhost
+-----+-----+-----+
| 9876 | chkd branch | 10000 |
+-----+-----+-----+
6 rows in set (0.000 sec)

MariaDB [banking]> select * from borrower;
+-----+-----+
| customer_id | loan_number |
+-----+-----+
| cust001     | 9874        |
| cust002     | 9875        |
| cust003     | 9872        |
| cust004     | 9873        |
| cust005     | 9871        |
+-----+-----+
5 rows in set (0.000 sec)

MariaDB [banking]> select * from account;
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1894571        | chkd branch | 12000   |
| 1894572        | kdlr branch | 32000   |
| 1894573        | ksd branch  | 52000   |
| 1894574        | mnir branch | 32000   |
| 1894575        | tkim branch | 42000   |
| 1894576        | mumb branch | 42000   |
| 1894577        | mumb branch | 52000   |
| 1894578        | mumb branch | 62000   |
+-----+-----+-----+
8 rows in set (0.001 sec)

MariaDB [banking]> select * from depositor;
+-----+-----+
| customer_id | account_number |
+-----+-----+
| cust007     | 1894576        |
| cust007     | 1894577        |
| cust007     | 1894578        |
| cust001     | 1894573        |
| cust002     | 1894574        |
+-----+-----+
5 rows in set (0.001 sec)

MariaDB [banking]>
```

1. Write an SQL trigger to carry out the following action: On delete of an account ,for each customer-owner of the account,check if the owner has any remaining accounts,and if she does not ,delete from the depositor relation.

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XAMPP for Windows - mysql -u root -p -h localhost
MariaDB [banking]> delimiter @
MariaDB [banking]> create trigger dtrigger after delete on account for each row
-> begin
-> delete from depositor where depositor.account_number=old.account_number and depositor.customer_id not in (
-> select customer_id from depositor where account_number<>old.account_number);
-> end @
Query OK, 0 rows affected (0.354 sec)

MariaDB [banking]> select * from account;
-> @
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1894571 | chkd branch | 12000 |
| 1894572 | kdln branch | 32000 |
| 1894573 | ksd branch | 52000 |
| 1894574 | mnlr branch | 32000 |
| 1894575 | tklm branch | 42000 |
| 1894576 | mumb branch | 42000 |
| 1894577 | mumb branch | 52000 |
| 1894578 | mumb branch | 62000 |
+-----+-----+-----+
8 rows in set (0.023 sec)

MariaDB [banking]> select * from depositor;
-> @
+-----+-----+
| customer_id | account_number |
+-----+-----+
| cust007 | 1894576 |
| cust007 | 1894577 |
| cust007 | 1894578 |
| cust001 | 1894573 |
| cust002 | 1894574 |
+-----+-----+
5 rows in set (0.000 sec)

MariaDB [banking]> delete from account where account_number=1894573;
-> @
Query OK, 1 row affected (0.156 sec)

MariaDB [banking]> select * from account;
-> @
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1894571 | chkd branch | 12000 |
| 1894572 | kdln branch | 32000 |
| 1894574 | mnlr branch | 32000 |
| 1894575 | tklm branch | 42000 |
| 1894576 | mumb branch | 42000 |
| 1894577 | mumb branch | 52000 |
| 1894578 | mumb branch | 62000 |
+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [banking]> select * from depositor;
-> @
+-----+-----+
| customer_id | account_number |
+-----+-----+
| cust007 | 1894576 |
| cust007 | 1894577 |
| cust007 | 1894578 |
| cust002 | 1894574 |
+-----+-----+
4 rows in set (0.000 sec)

MariaDB [banking]>
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```
XAMPP for Windows - mysql -u root -p -h localhost
MariaDB [banking]> delete from account where account_number=1894573;
-> @
Query OK, 1 row affected (0.156 sec)

MariaDB [banking]> select * from account;
-> @
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1894571 | chkd branch | 12000 |
| 1894572 | kdln branch | 32000 |
| 1894574 | mnlr branch | 32000 |
| 1894575 | tklm branch | 42000 |
| 1894576 | mumb branch | 42000 |
| 1894577 | mumb branch | 52000 |
| 1894578 | mumb branch | 62000 |
+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [banking]> select * from depositor;
-> @
+-----+-----+
| customer_id | account_number |
+-----+-----+
| cust007 | 1894576 |
| cust007 | 1894577 |
| cust007 | 1894578 |
| cust002 | 1894574 |
+-----+-----+
4 rows in set (0.000 sec)

MariaDB [banking]>
```

2. Find the average balance for each customer who lives in Mumbai and has at least three accounts.

```
XAMPP for Windows - mysql -u root -p -h localhost
MariaDB [banking]> select * from account;
+-----+-----+-----+
| account_number | branch_name | balance |
+-----+-----+-----+
| 1894571 | chkd branch | 12000 |
| 1894572 | kd1r branch | 32000 |
| 1894573 | ksd branch | 52000 |
| 1894574 | mn1r branch | 32000 |
| 1894575 | tk1m branch | 42000 |
| 1894576 | mumb branch | 42000 |
| 1894577 | mumb branch | 52000 |
| 1894578 | mumb branch | 62000 |
+-----+-----+-----+
8 rows in set (0.000 sec)

MariaDB [banking]> select * from depositor;
+-----+-----+
| customer_id | account_number |
+-----+-----+
| cust007 | 1894576 |
| cust007 | 1894577 |
| cust007 | 1894578 |
| cust001 | 1894573 |
| cust002 | 1894574 |
+-----+-----+
5 rows in set (0.000 sec)

MariaDB [banking]> select customer_id,avg(balance) from customer,account,depositor
-> where customer.customer_id=depositor.customer_id and depositor.account_number=account.account_number and customer.customer_id in(
-> select customer_id from depositor group by customer_id having count(*)>=3) and
-> customer.customer_city='mumbai' group by customer_id;
+-----+-----+
| customer_id | avg(balance) |
+-----+-----+
| cust007 | 52000.0000 |
+-----+-----+
1 row in set (0.001 sec)

MariaDB [banking]>
```