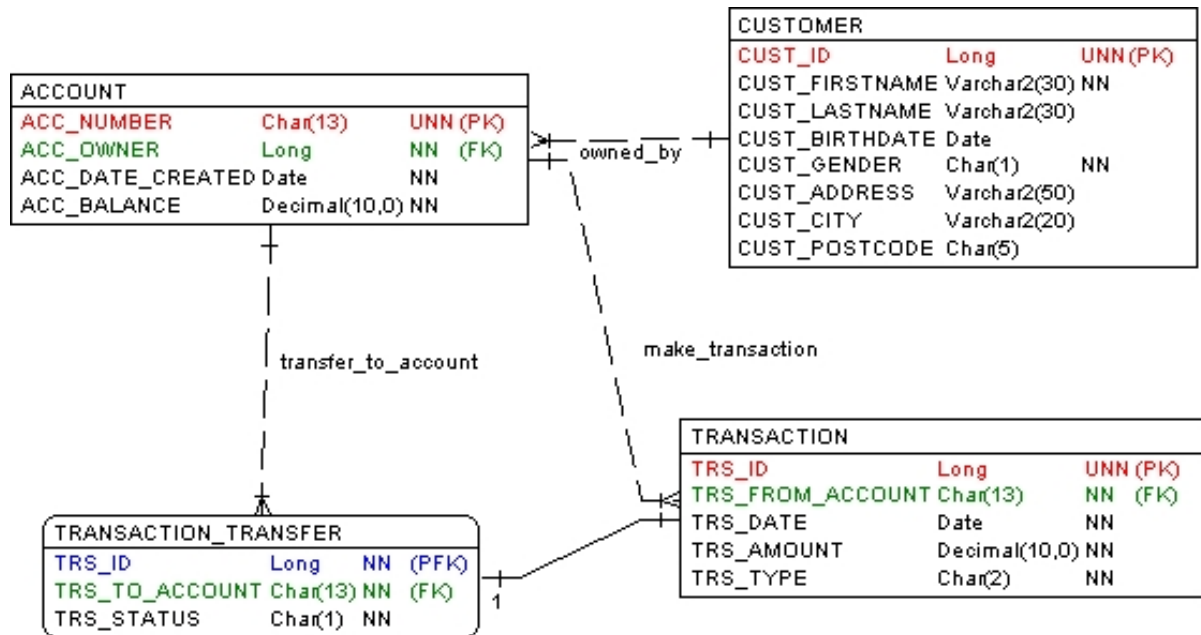


Structured Query Language (SQL)



Note:

- UNN : Unique, Not Null
- PK : Primary Key
- FK : Foreign Key
- NN : Not Null

Table description:

1. CUSTOMER: contains all bank customer data
The column CUST_GENDER is set to 1 for male and 2 for female.
2. ACCOUNT: contains all customer accounts

The column ACC_OWNER is the Foreign Key which refers to the column CUST_ID of the table CUSTOMER.

3. TRANSACTION: records all transactions.

The column TRS_TYPE contains the transaction type with possible values:

- a. DB: for debit transaction.
- b. CR: for credit transaction.
- c. TF: for money transfer. The column TRS_FROM_ACCOUNT contains the source account.

4. TRANSACTION_TRANSFER: contains additional information if the transaction is money transfer.

The column TRS_STATUS contains one of the following values:

- a. 0: if transaction is not executed yet
- b. 1: if transaction is executed successfully
- c. -1: if transaction is failed (e.g. the balance of source account (TRS_FROM_ACCOUNT) is not available)

Questions

Create SQL queries for the following requirements:

1. Recapitulation of number of accounts owned by every customer.

Answer:

```
SELECT c.CUST_ID, c.CUST_FIRSTNAME, c.CUST_LASTNAME,
COUNT(a.ACC_OWNER) AS recap_of_acc_number from account a, customer c where
a.ACC_OWNER = c.CUST_ID GROUP BY a.ACC_OWNER;
```

2. All transactions created by John Michael sorted by account number and transaction date

Answer:

```
SELECT c.CUST_ID, c.CUST_FIRSTNAME, c.CUST_LASTNAME,
t.TRS_ID, t.TRS_FROM_ACCOUNT, t.TRS_DATE, t.TRS_AMOUNT,
t.TRS_TYPE from transaction t, account a, customer c where
t.TRS_FROM_ACCOUNT=a.ACC_NUMBER and a.ACC_OWNER =
c.CUST_ID and c.CUST_FIRSTNAME = 'John' and
c.CUST_LASTNAME = 'Michael' ORDER BY a.ACC_NUMBER DESC,
t.TRS_DATE DESC;
```