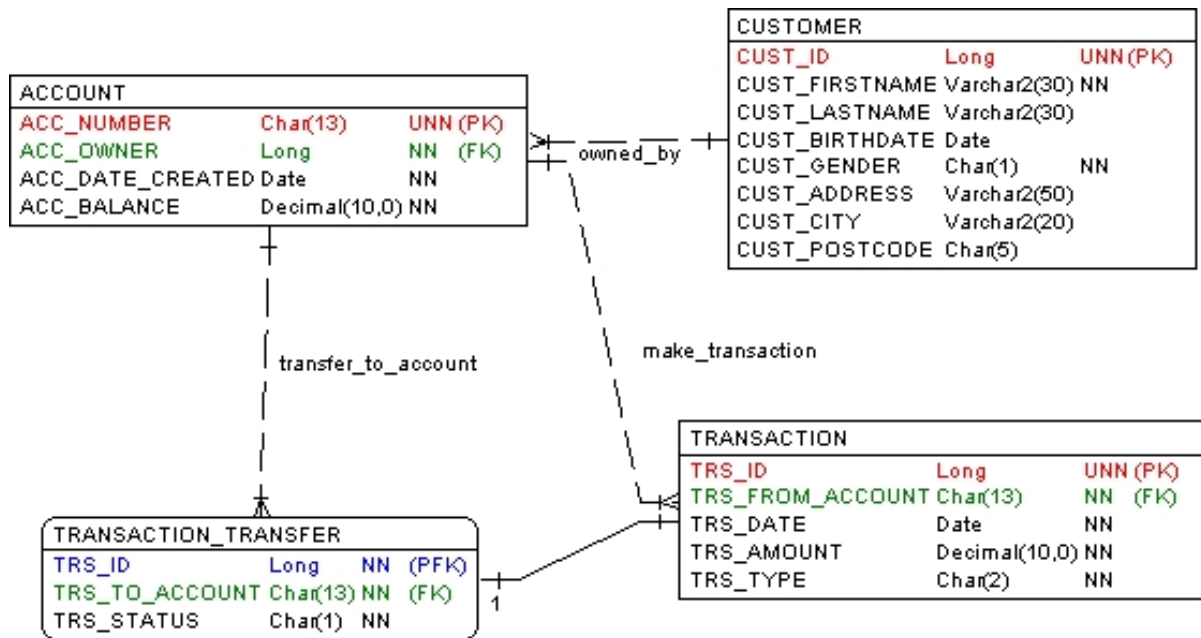


Structured Query Language (SQL)



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 COUNT(ACC_NUMBER) as sum_account, ACC_OWNER  
FROM ACCOUNT  
GROUP BY ACC_OWNER;
```

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

Answer:

```
SELECT C.CUST_FIRSTNAME, C.CUST_LASTNAME, A.ACC_NUMBER,  
C.CUST_ID, T.TRS_DATE  
FROM TRANSACTION T  
JOIN ACCOUNT A  
ON A.ACC_NUMBER = T.TRS_FROM_ACCOUNT  
JOIN CUSTOMER C  
ON C.CUST_ID = A.ACC_OWNER  
WHERE C.CUST_FIRSTNAME = "John" AND C.CUST_LASTNAME = "Michael"  
ORDER BY A.ACC_NUMBER, T.TRS_DATE
```