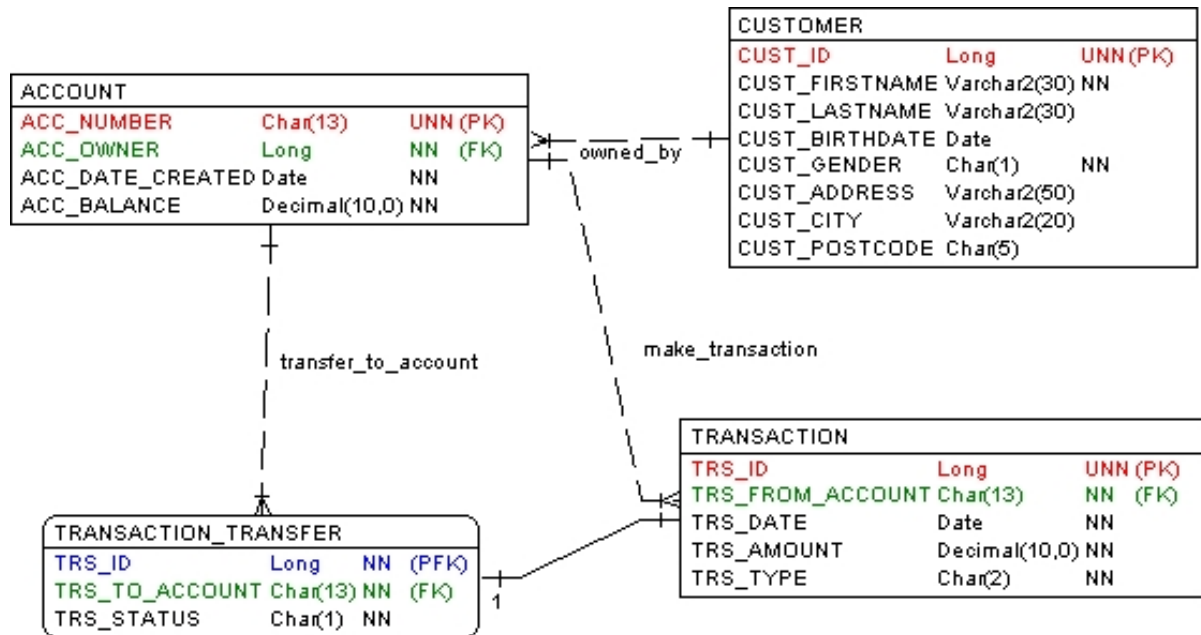


Structured Query Language (SQL)



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:

'first question

```
SELECT CUST.CUST_ID,CUST.CUST_FIRSTNAME, CUST.CUST_ADDRESS,
ACT.ACC_NUMBER, COUNT(ACT.ACC_OWNER) AS TOTAL_ACCOUNT FROM CUSTOMER
CUST
LEFT JOIN ACCOUNT ACT ON ACT.ACC_OWNER = CUST.CUST_ID;
```

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

Answer:

'second question

```
SELECT CUST.CUST_FIRSTNAME, T.TRS_FROM_ACCOUNT AS SOURCE_ACCOUNT,
TT.TRS_TO_ACCOUNT AS DEST_ACCOUNT, T.TRS_DATE, T.TRS_AMOUNT
FROM TRANSACTION_TRANSFER TT
LEFT JOIN TRANSACTION T ON T.TRS_ID=TT.TRS_ID
LEFT JOIN ACCOUNT ACT1 ON T.TRS_FROM_ACCOUNT=ACT1.ACC_NUMBER
LEFT JOIN ACCOUNT ACT2 ON TT.TRS_TO_ACCOUNT=ACT2.ACC_NUMBER
LEFT JOIN CUSTOMER CUST ON ACT1.ACC_OWNER=CUST.CUST_ID
ORDER BY ACT.ACC_NUMBER, T.TRS_DATE;
```