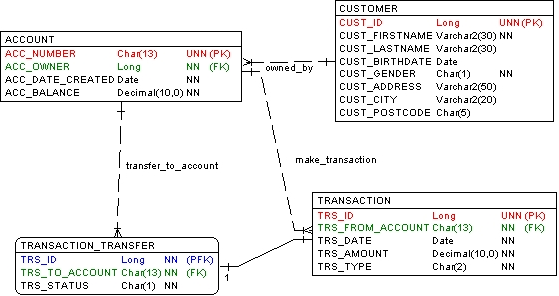
# Structured Query Language (SQL)



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.

1. ACCOUNT: contains all customer accounts

The column ACC\_OWNER is the Foreign Key which refers to the column CUST\_ID of the table CUSTOMER.

1. TRANSACTION: records all transactions.

The column TRS\_TYPE contains the transaction type with possible values:

* 1. DB: for debit transaction.
  2. CR: for credit transaction.
  3. TF: for money transfer. The column TRS\_FROM\_ACCOUNT contains the source account.

1. TRANSACTION\_TRANSFER: contains additional information if the transaction is money transfer.

The column TRS\_STATUS contains one of the following values:

* 1. 0: if transaction is not executed yet
  2. 1: if transaction is executed successfully
  3. -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\_FIRSTNAME || ' ' || C.CUST\_LASTNAME AS CUSTOMER\_NAME,  COUNT(A.ACC\_NUMBER) AS NUMBER\_OF\_ACCOUNTS  FROM  CUSTOMER C  LEFT JOIN  ACCOUNT A ON C.CUST\_ID = A.ACC\_OWNER  GROUP BY  C.CUST\_FIRSTNAME, C.CUST\_LASTNAME  ORDER BY  CUSTOMER\_NAME; |

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

Answer:

|  |
| --- |
| SELECT  T.TRS\_ID,  T.TRS\_FROM\_ACCOUNT,  T.TRS\_DATE,  T.TRS\_AMOUNT,  T.TRS\_TYPE  FROM  TRANSACTION T  JOIN  CUSTOMER C ON T.TRS\_FROM\_ACCOUNT = C.CUST\_ID  WHERE  C.CUST\_FIRSTNAME = 'John' AND C.CUST\_LASTNAME = 'Michael'  ORDER BY  T.TRS\_FROM\_ACCOUNT, T.TRS\_DATE; |