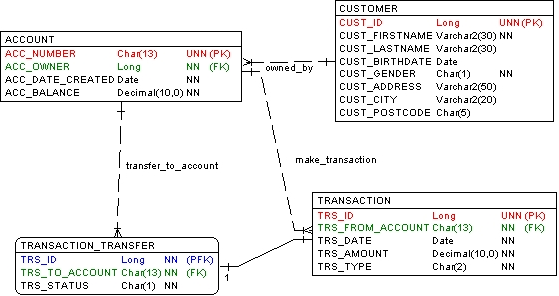
# Structured Query Language (SQL)



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 CUSTOMER.FIRSTNAME, COUNT(ACCOUNT.ACC\_OWNER) AS AllAccount

FROM CUSTOMER

LEFT JOIN ACCOUNT ON CUSTOMER.CUST\_ID = ACCOUNT.ACC\_OWNER

GROUP BY CUSTOMER.FIRSTNAME

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

**Answer**:

SELECT \*

FROM TRANSACTION

JOIN ACCOUNT ON ACCOUNT.ACC\_NUMBER = TRANSACTION.TRS\_ID

JOIN CUSTOMER ON ACCOUNT.ACC\_OWNER = CUSTOMER.CUST\_ID

WHERE CUSTOMER.FIRSTNAME = ‘John’ and CUSTOMER.LASTNAME = ‘Michael’

ORDER BY ACCOUNT.ACC\_NUMBER TRANSACTION.TRS\_DATE