Given below are a few examples of a database and a few queries based on that.

(1). Suppose there is a banking database which comprises following tables :

Customer(Cust_name, Cust_street, Cust_city)

Branch(Branch_name, Branch_city, Assets)

Account (Branch_name, Account_number, Balance)

Loan(Branch_name, Loan_number, Amount)

Depositor(Cust_name, Account_number)

Borrower(Cust_name, Loan_number)

Query : Find the names of all the customers who have taken a loan from the bank and also have an account at the bank.

Solution:

Step 1 : Identify the relations that would be required to frame the resultant query.

First half of the query(i.e. names of customers who have taken loan) indicates "borrowers" information.

So Relation 1 ——> Borrower.

Second half of the query needs Customer Name and Account number which can be obtained from Depositor relation.

Hence, Relation 2——> Depositor.

Step 2 : Identify the columns which you require from the relations obtained in Step 1.

Column 1 : Cust_name from Borrower

$$\Pi_{customer\_name} \; (borrower)$$

Column 2 : Cust_name from Depositor

$$\Pi_{customer\_name} \ (depositor)$$

$$\Pi_{customer\_name} \ (borrower) \cap \Pi_{customer\_name} \ (depositor)$$