

# Multiplicities

## relationships between tables

- There are 3 types of Multiplicities

### 1. 1-to-1

- each piece of data in either table corresponds with exactly one piece of data in the other table
- this relationship never has to exist, but may be desired

### 2. 1-to-Many

- each piece of data in one of the tables corresponds to many pieces of data in the other table.
  - This relationship is NOT symmetrical
  - In the other direction => Many-to-1

### 3. Many-to-Many

- each piece of data in either table can correspond to many pieces of data in the other table
  - this relationship IS symmetrical
- Junction Table
  - an intermediary table to break up the relationships into 2 sets of 1-to-Many