**Relationship Types Contd.**

- **Many to One Relationship**
  When more than one instance of an entity is associated with single instance of another entity then it is called Many to One Relationship.

  **Note:** Many to One relationship can also be viewed as One to Many relationships depending on which way we look at it.

  **Example1:** A Student enrolls for only one Course but a Course can have many Students.

  ![Many to One Relationship Diagram](image)

  **Example2:** A Scientist can invent many Inventions but an Invention is associated with single Scientist.

  ![Many to One Relationship Diagram](image)

- **Many to Many Relationship**
  When more than one instance of an entity is associated with more than one instance of another entity then it is called Many to Many Relationship.
**Example1:** A Student is associated with many Teachers and a Teacher is associated with many Students.

**Example2:** An Employee can be assigned many Projects and a Project can have many Employee associated with it.

**Important Point:** A “Many to Many” relationship could be thought of as two “One to Many” relationship linked together. Two “One to Many” tables linked together through intermediary table (also called Cross-reference table). This table links the other two tables together.
Exercises:

1. Draw ER diagram for representing Many to One Relationship.
2. Draw ER diagram for representing Many to Many Relationship.
   (Note: You must use different examples other than above.)