Relational Database Management System
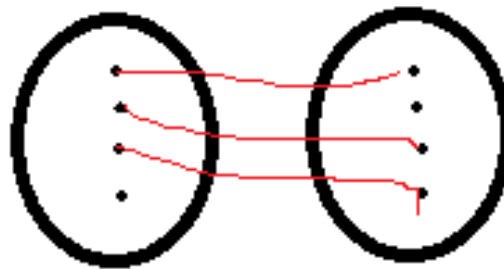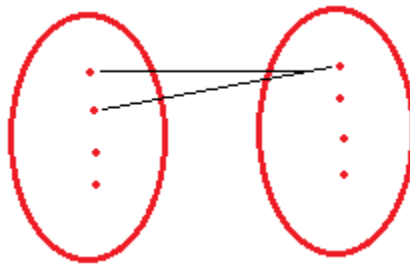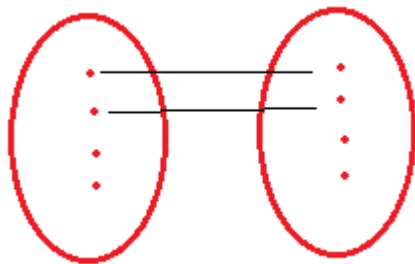# 116U01C403

Mapping Cardinality

- Cardinality defines the number of entities in one entity set, which can be associated with the number of entities of other entity set via relationship set.
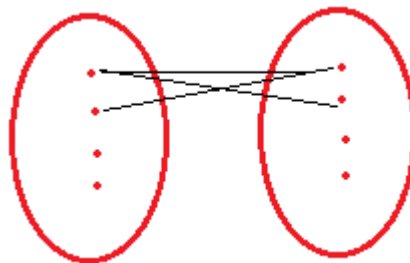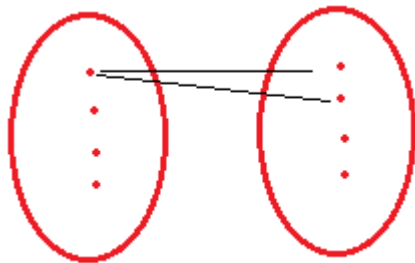- Cardinality ratio tells how many times the entity of an entity set participates in a relationship.

- There are 4 types of cardinality ratio in Binary relationship:
  1. One-to-one (1:1)
  2. One-to-many (1:N)
  3. Many-to-one (N:1)
  4. Many-to-many (M:N)

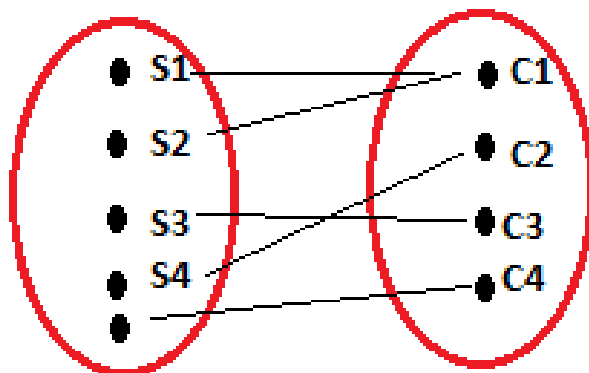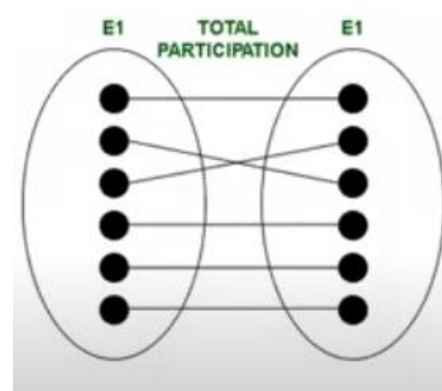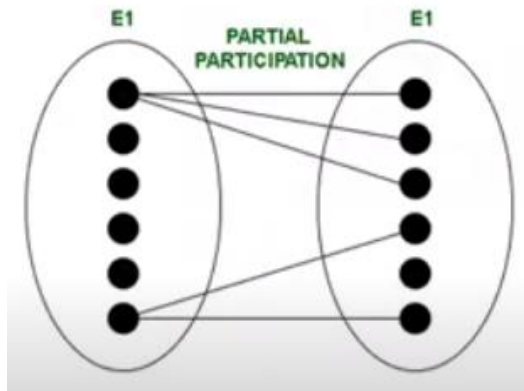Person-Passport

Student –College

College -Student

Project-Employee

Participation constraints

- Participation Constraints tell us that the participation in a relationship can either be total or partial.
- When each entity in an entity set participates in a relation, it is called *Total Participation*.
- However, when all entities in the given entity set do not participate in a relation, it is called *Partial Participation*.

Example

ER-Diagram Naming Convention

In our ER diagrams, we will use the convention that entity type and relationship type names are uppercase letters, attribute names have their initial letter capitalized, and role names are lowercase letters.