

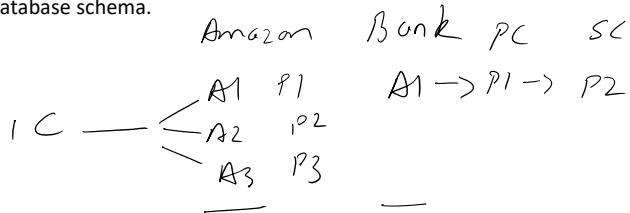
ER Diagram

Wednesday, March 23, 2022 7:06 AM

ER Diagram / ERD stands for Entity Relationship Diagram. It displays the relationship of entity sets stored in a database or we can say that it is a logical representation of tables in database schema.

It works on three main concepts

1. **Entities (Strong / Weak)**
2. **Attributes (Simple / Composite / Multivalued)**
3. **Relationships ()**



Main Purpose

- Acts as a blueprint or graphical representation of database
- ERD Diagram allows you to communicate with the logical structure of the database to users

Main Components of ER Diagram

Following are the main components and its symbols in ER Diagrams:

- **Rectangles:** This Entity Relationship Diagram symbol represents entity types
- **Ellipses:** Symbol represent attributes
- **Diamonds:** This symbol represents relationship types
- **Lines:** It links attributes to entity types and entity types with other relationship types
- **Primary key:** attributes are underlined
- **Double Ellipses:** Represent multi-valued attributes



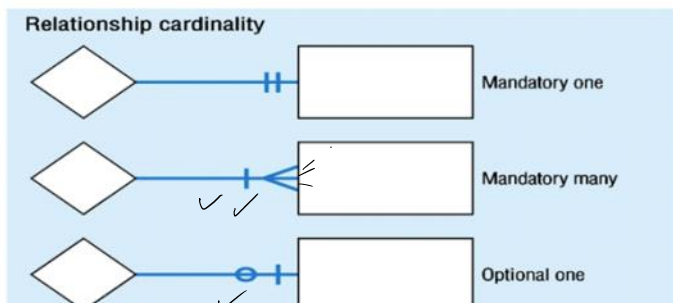
ER Diagram Symbols

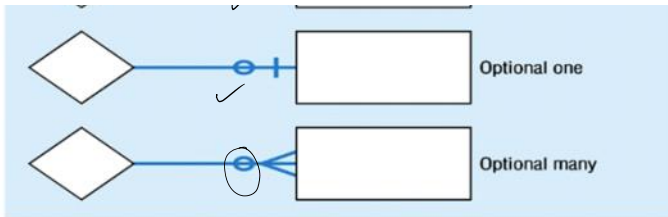
Cardinality

Defines the numerical attributes of the relationship between two entities or entity sets.

Different types of cardinal relationships are:

- One-to-One Relationships
- One-to-Many Relationships
- May to One Relationships
- Many-to-Many Relationships





Eg:

