

ENTITY RELATIONSHIP DIAGRAM



An Entity Relationship Diagram describes the how entities such as people, objects or concepts relate to each other within a system.

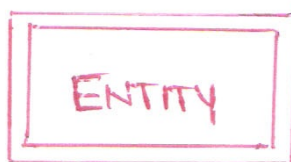
These ERD are composed of Entities, Relationships & Attributes.

Now we will see how entities and attributes are represented with help of ERD components.

→ Rectangle: Entities are represented by Rectangles.



→ Double Rectangle: A weak entity is represented in the Double Rectangle and it is implemented by Foreign Key Relationship with another Entity.

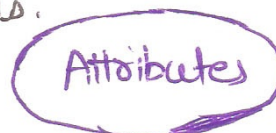


→ Diamond Shape: Relationship / Action are represented by Diamond.



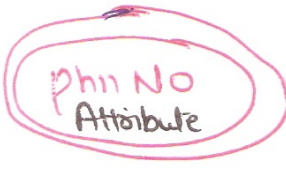
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→ Ellipses/Oval: → Attributes are represented by Ellipses/Ovals.



→ Double Ellipse!- An Attribute can have more than 1 field/value like phn No. So it is Represented in Double ellipse

→ Dashed ellipse
↓
Derived Attributes



→ Attribute which is based on Another attribute are called Derived attributes. and they are represented by Dashed ellipse

like employ's Monthly Salary based on his Annual Salary.

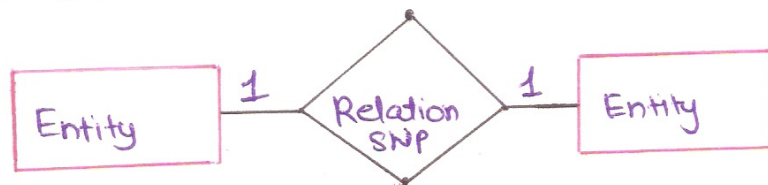
Attribute:



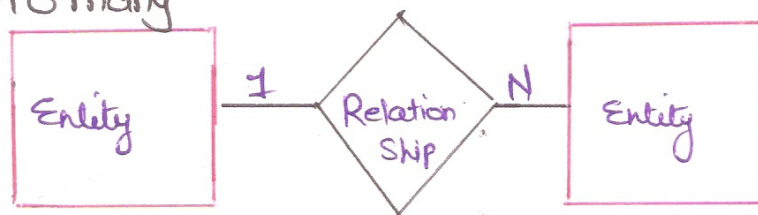
→ Lines :- They are ways of Showing Relationships & Cardinality.

Binary Relationship and Cardinality

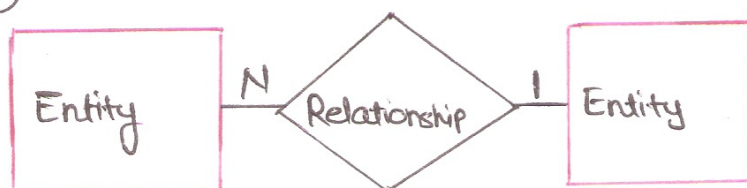
→ One to one



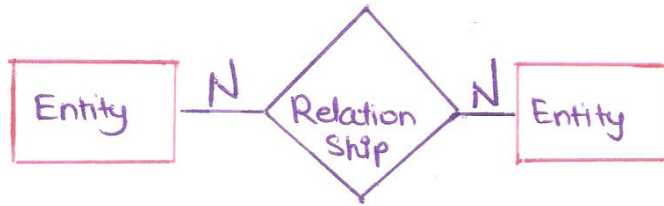
→ One to many



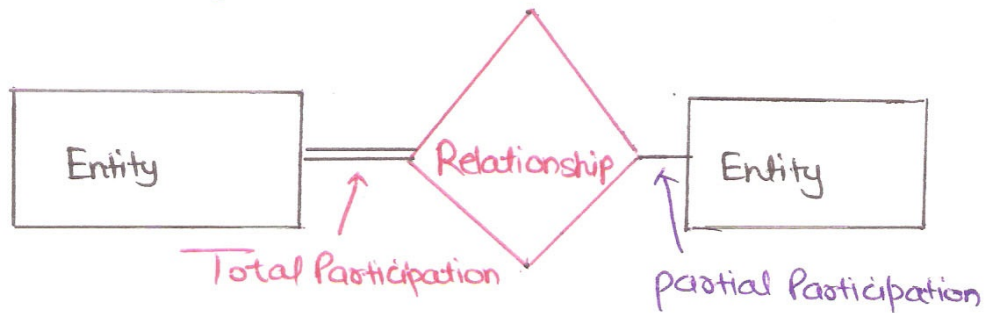
→ Many to One



→ Many to Many



Representation of participation Constraints



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