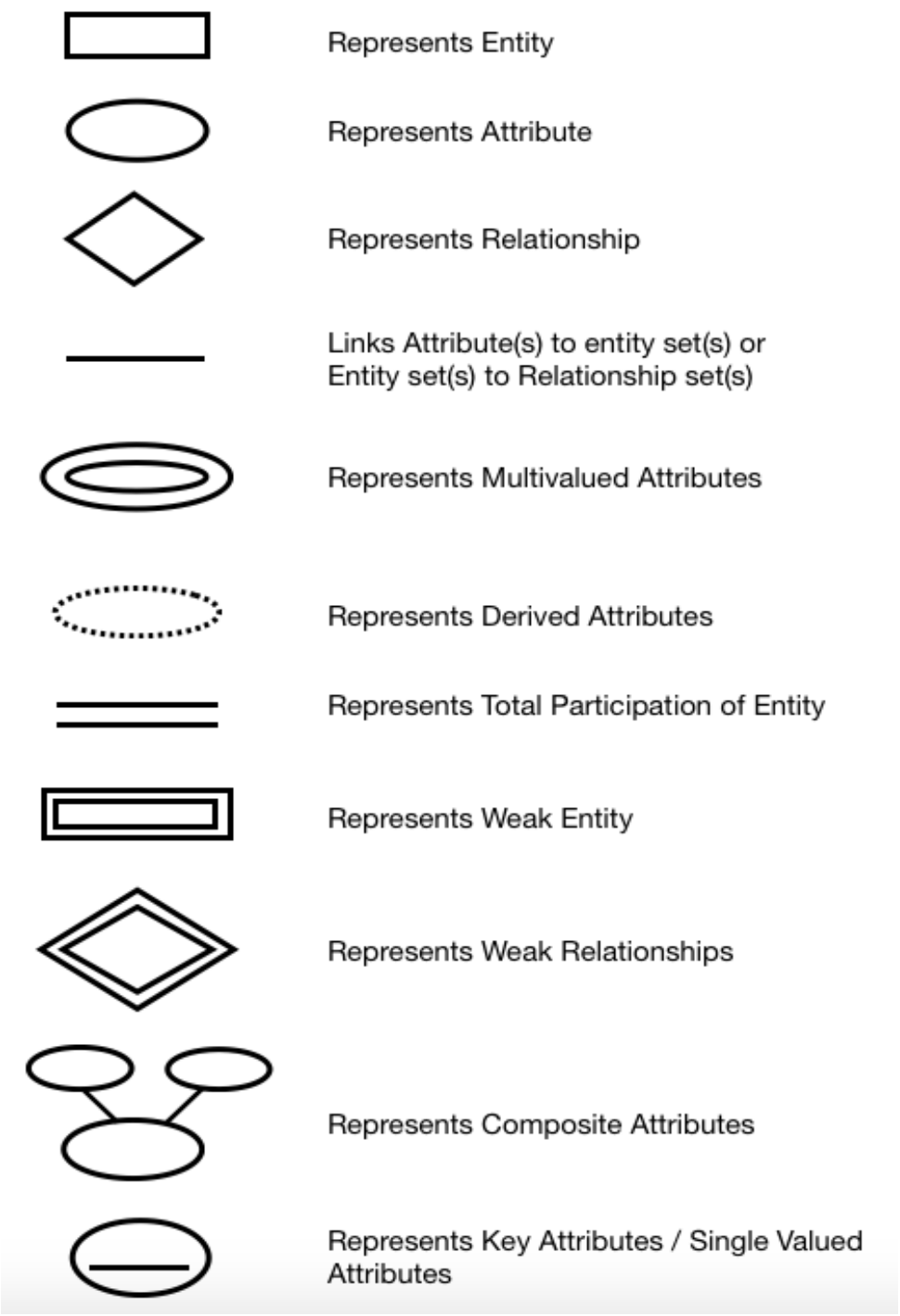
ERD

Wednesday, 26 August 2020 7:35 AM

An Entity–relationship model (ER model) describes the structure of a database with the help of a diagram, which is known as Entity Relationship Diagram (ER Diagram).

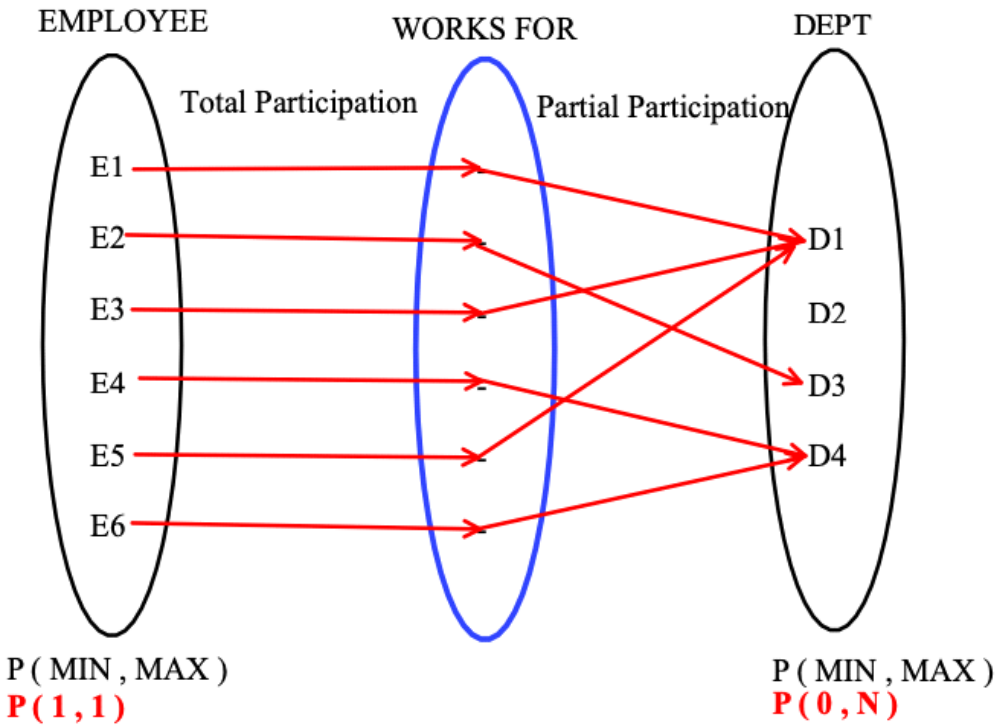
ER diagram has three main components:
1. Entity
2. Attribute
3. Relationship

Notations :



User Requirement :

I have a company with multiple departments , and an employee has to work a dept but
Any department . And a department can have any number of employees .
I want a department to empty for a period of time .



Participation :

Min Participation : it is the minimum number of times that an entity takes part in the relation .

Max Participation :it is the maximum number of times that an entity takes part in the relation .

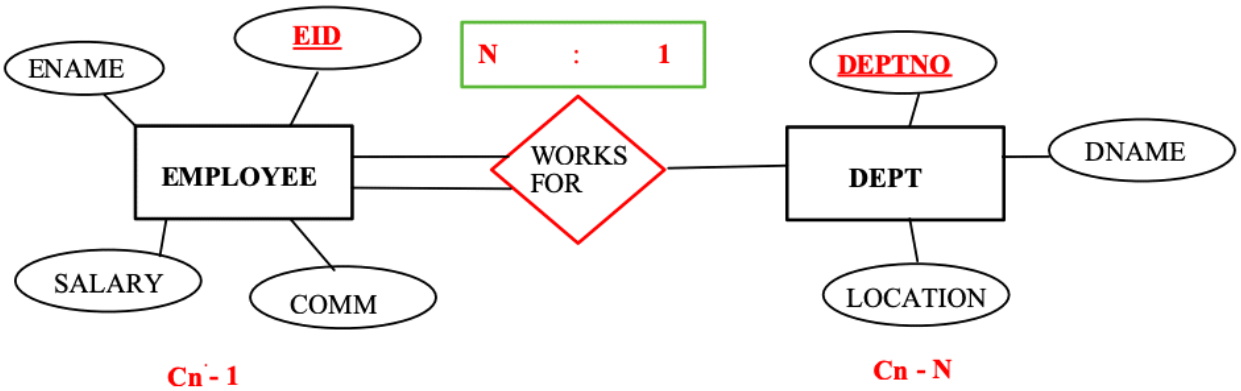
Cardinality Number : The maximum participation is known as Cardinality number

Cardinality Number of Employee - **1**
Cardinality Number of dept - **N**

Cardinality Ratios / Relationship Ratio :

1. One - to - One (1 : 1)
2. One - to - Many (1 : N)
3. Many - to - One (N : 1)
4. Many - to - Many (N : N)

ENTITY RELATIONSHIP DIAGRAM FOR EMP AND DEPT TABLE



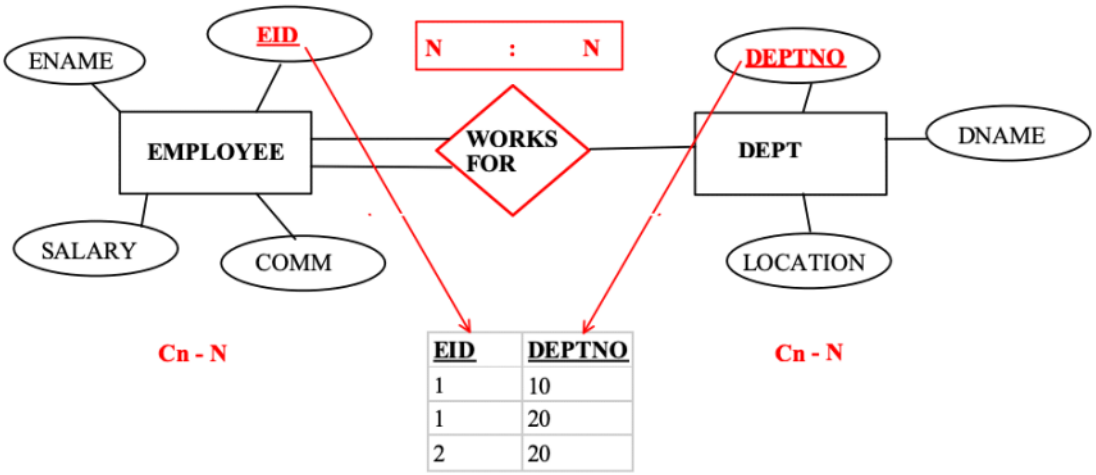
Total Participation : If all the entities are taking part in the relation then it is represented as Total Participation

Partial Participation : If any one of the entity is not taking part in the relation then it is represented as Partial Participation

RULE :

1. FOR the ratios **1:1 , 1:N , N:1** we need not create a new table to store the relationship .
   - The Primary key of the table who's cardinality is N , is chosen to be a Foreign key in the
     Table who's cardinality is 1 .

2. For the ratio **N:N** , We must create a new table to store their relation .
   - The primary keys of both the tables will be chosen to be a Foreign key in a new table .



EID	DEPTNO
1	10
1	20
2	20

RELATION SHIP

NOTE :

Instagram :	**Ro_sql_helpmate / rohan_singh_ro**
Facebook :	**Rohan Singh Ro**
Mail id :	**Ro.helpmate@gmail.com**
Reference Notes :	**goo.gl/hVjjxE**