Course Name: **A Level (1ˢᵗ Sem)** Subject : **Introduction to DBMS**
Topic: **ERD – Relationship & Its Types (Part 2)** Date: **31-Mar-2020**

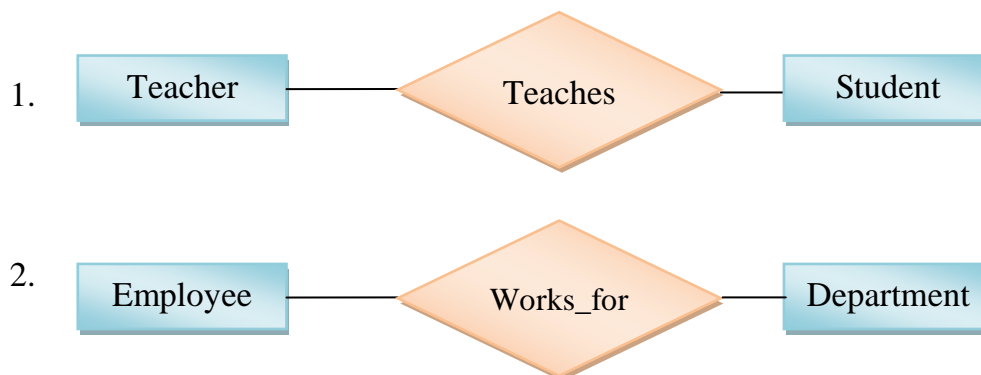
Relationship in ERD

⬇ Relationship

Relationships are used to describe relations between entities. Relationships are represented by Diamond shaped box. Diamonds are name with relationship name and participating entities are connected to diamond by line shape.

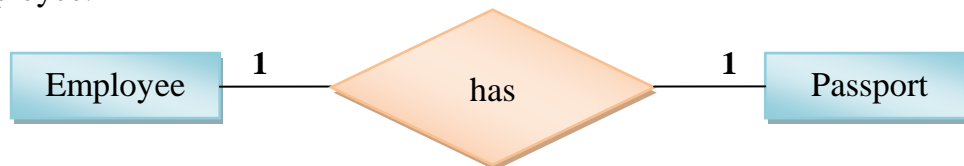For Example:

1.

2.
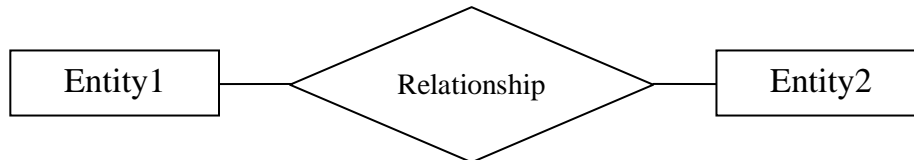
⬇ Types of Relationship

- One to One Relationship
- One to Many Relationship
- Many to One Relationship
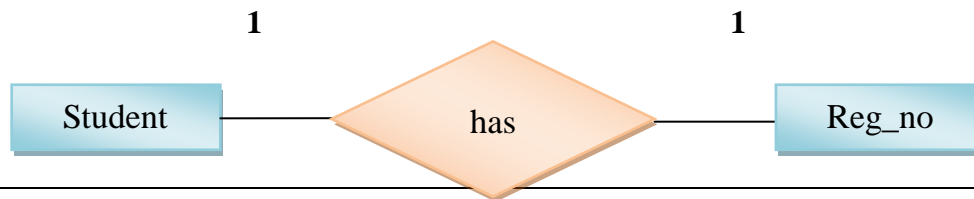- Many to Many Relationship

- **One to One Relationship**

When single instance of an entity is associated with single instance of another entity then it is called One to One Relationship.

Example1: An Employee can have only one Passport, and a Passport is associated with single Employee.

Employee	1 ———	has	——— 1	Passport

Example2: A Student can have one Reg_no, and a Reg_no is associated with single Student.

| Student	1 ———	has	——— 1	Reg_no

- **One to Many Relationship**

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

Example1: A customer can place many Orders but an Order cannot be placed by many customers.

Customer	1 ———	Places	——— M	Order

Example2: A Department can have many Employees, but an employee is associated with single Department.

| Department | 1 —— Has —— M | Employee |
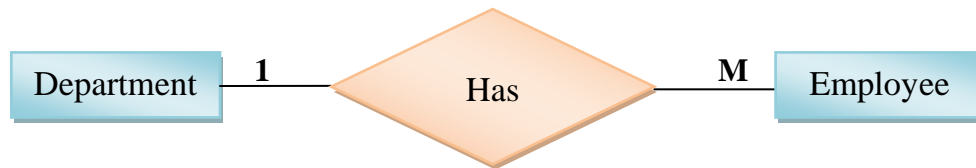
Exercises:

1. Draw ER diagram for representing One to One Relationship.
2. Draw ER diagram for representing One to Many Relationship.

(Note: You must use different examples other than above.)