

## NIELIT Gorakhpur

Course name:A level

SUBJECT:DATABASE TECHNOLOGIES

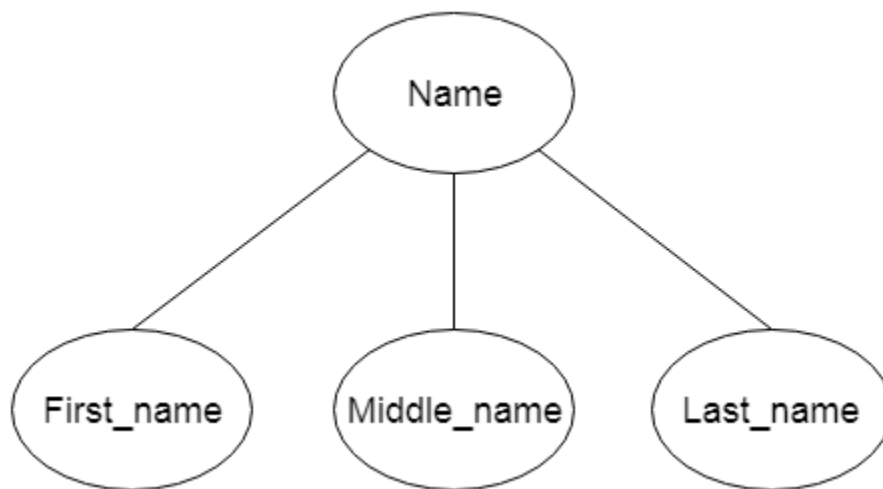
Topic:ER MODEL

DATE:20/3/2020

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### **b. Composite Attribute**

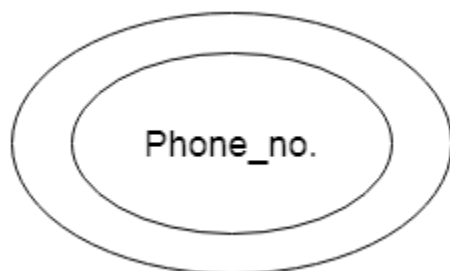
An attribute that composed of many other attributes is known as a composite attribute. The composite attribute is represented by an ellipse, and those ellipses are connected with an ellipse.



### **c. Multivalued Attribute**

An attribute can have more than one value. These attributes are known as a multivalued attribute. The double oval is used to represent multivalued attribute.

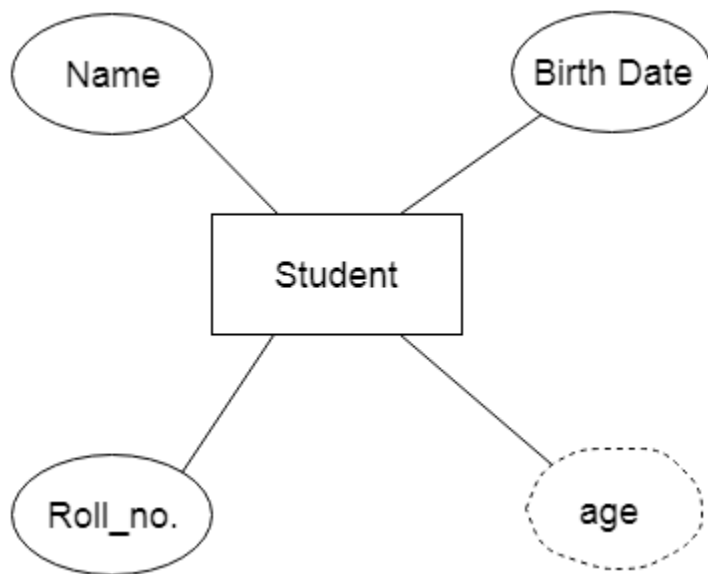
**For example,** a student can have more than one phone number.



#### d. Derived Attribute

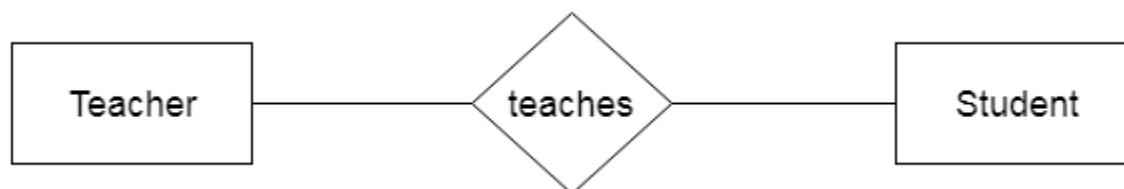
An attribute that can be derived from other attribute is known as a derived attribute. It can be represented by a dashed ellipse.

**For example,** A person's age changes over time and can be derived from another attribute like Date of birth.



### 3. Relationship

A relationship is used to describe the relation between entities. Diamond or rhombus is used to represent the relationship.



Types of relationship are as follows:

#### a. One-to-One Relationship

When only one instance of an entity is associated with the relationship, then it is known as one to one relationship.

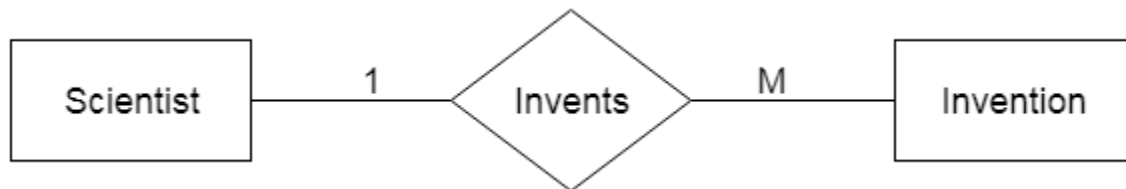
**For example,** A female can marry to one male, and a male can marry to one female.



### b. One-to-many relationship

When only one instance of the entity on the left, and more than one instance of an entity on the right associates with the relationship then this is known as a one-to-many relationship.

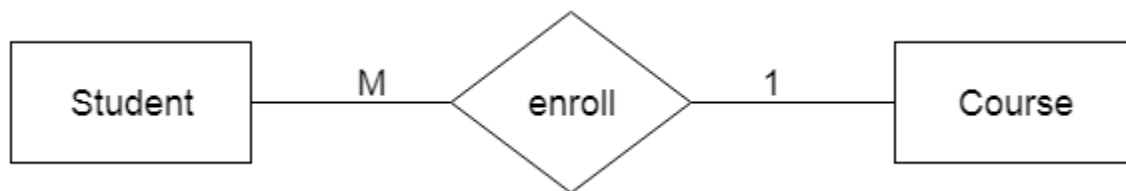
**For example,** Scientist can invent many inventions, but the invention is done by the only specific scientist.



### c. Many-to-one relationship

When more than one instance of the entity on the left, and only one instance of an entity on the right associates with the relationship then it is known as a many-to-one relationship.

**For example,** Student enrolls for only one course, but a course can have many students.



### d. Many-to-many relationship

When more than one instance of the entity on the left, and more than one instance of an entity on the right associates with the relationship then it is known as a many-to-many relationship.

**For example,** Employee can assign by many projects and project can have many employees.



### Assignment

1. what are composite attribute?
2. what are different type of relationship?