NIELIT Gorakhpur

Course name: A level SUBJECT: DATABASE TECHNOLOGIES

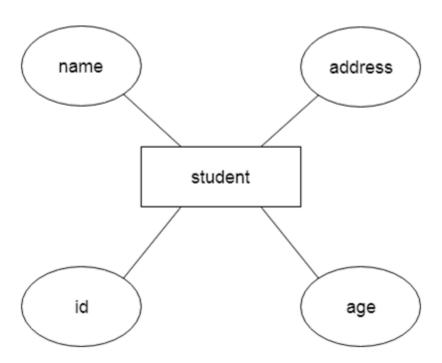
Topic:ER MODEL DATE:19/3/2020

ER model

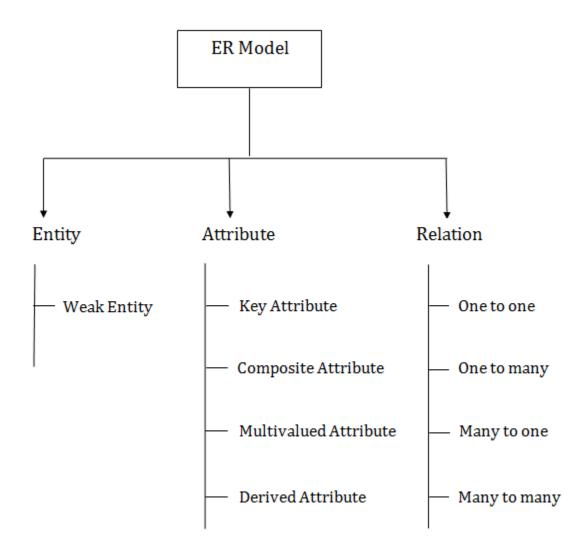
ER model stands for an Entity-Relationship model. It is a high-level data model. This
model is used to define the data elements and relationship for a specified system.

- It develops a conceptual design for the database. It also develops a very simple and easy to design view of data.
- o In ER modeling, the database structure is portrayed as a diagram called an entityrelationship diagram.

For example, Suppose we design a school database. In this database, the student will be an entity with attributes like address, name, id, age, etc. The address can be another entity with attributes like city, street name, pin code, etc and there will be a relationship between them.



Component of ER Diagram



1. Entity:

An entity may be any object, class, person or place. In the ER diagram, an entity can be represented as rectangles.

Consider an organization as an example- manager, product, employee, department etc. can be taken as an entity.



a. Weak Entity

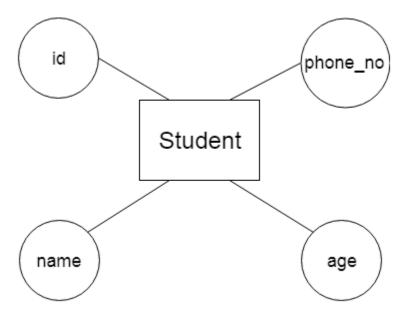
An entity that depends on another entity called a weak entity. The weak entity doesn't contain any key attribute of its own. The weak entity is represented by a double rectangle.



2. Attribute

The attribute is used to describe the property of an entity. Eclipse is used to represent an attribute.

For example, id, age, contact number, name, etc. can be attributes of a student.



a. Key Attribute

The key attribute is used to represent the main characteristics of an entity. It represents a primary key. The key attribute is represented by an ellipse with the text underlined.