Entity

An entity is an object or component of data. An entity is represented as rectangle in an ER diagram.

For example: Let we have two entities Student and College and these two entities have many to one relationship as many students study in a single college.

Attribute

An attribute describes the property of an entity. An attribute is represented as Oval in an ER diagram.

Types of attributes:

1. Key attribute
2. Composite attribute
3. Multivalued attribute
4. Derived attribute

1. Key attribute

A key attribute can uniquely identify an entity from an entity set.

For example, student roll number can uniquely identify a student from a set of students.

Key attribute is represented by oval same as other attributes however the text of key attribute is underlined.

2. Composite attribute

An attribute that is a combination of other attributes is known as composite attribute.

For example, In student entity, the student address is a composite attribute as an address is composed of other attributes such as pin code, state, country.

3. Multivalued attribute

An attribute that can hold multiple values is known as multivalued attribute. It is represented with double ovals in an ER Diagram.

For example, A person can have more than one phone numbers so the phone number attribute is multivalued.

4. Derived attribute

A derived attribute is one whose value is dynamic and derived from another attribute. It is represented by dashed oval in an ER Diagram.

For example, Person age is a derived attribute as it changes over time and can be derived from another attribute (Date of birth).