

(Lecture)
7.8

Entity:-

Entity is actually name, place or object.

ERD:-

Entity relation diagram is graphical representation.

Steps involved in ERD are as follows:-

1) Identify Entities:-

It is entity instance. The full record of one thing or one person in table of DB. It is also called "tuple".

2) Attributes:-

Characteristics or Objects in given table or data are called Attributes.

i.e. Name, Surname, designation etc.

- Domain of Attribute:-

Type of data in attribute is called domain of attribute.

- Types of Attributes:-

There are the following three attributes of types:-

a) Single vs Composite Attributes:-

↓ ↓
[Attributes which doesn't] [Attributes which divides
further divide] [further into sub-category]

b) Single Value vs Composite value Attributes

↓ ↓
[Attribute having single] [Attributes having multiple
value. i.e Age] [values. i.e Address
Street City Code]

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c) Store vs Drive Attributes:-

↓ ↓
[Attributes that can] [Attributes that can be
store directly] [derived from stored
Attributes]

Types of Entities:-

It has following two types:-

Strong Entity

Weak Entity

Entity that works individually
or independently is called

Entity that depends or
can't perform independently
is called weak entity.

Strong Entity

Weak Entity

— We have Two Models for Entity:—

- i) Chen Model
- ii) Crow's Field Model

We will follow Chen model for exams. In Chen model:—

- Single values will shown by single line
- Double or Composite values will shown by double line.

3) Relationships:—

We have basically three types of relationships:—

- i) 1 to 1
- ii) 1 to Many
- iii) Many to Many

• Degree of Relationship:—

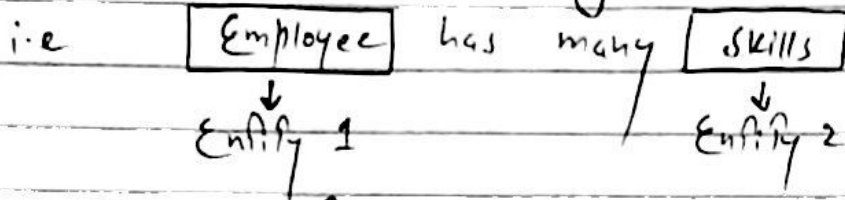
a) Unary Relationship

An entity shows relationship with itself.

i.e. A course followed by other course.

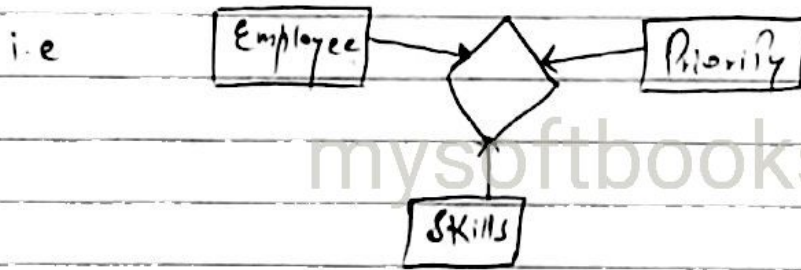
b) Binary Relationship:-

If two entities involved then it will be binary relationship.



c) Ternary Relationship:-

In this relationship, three entities involved:-



• Cardinality:-

Cardinality shows about minimum instances or maximum instances for both side of entities.

