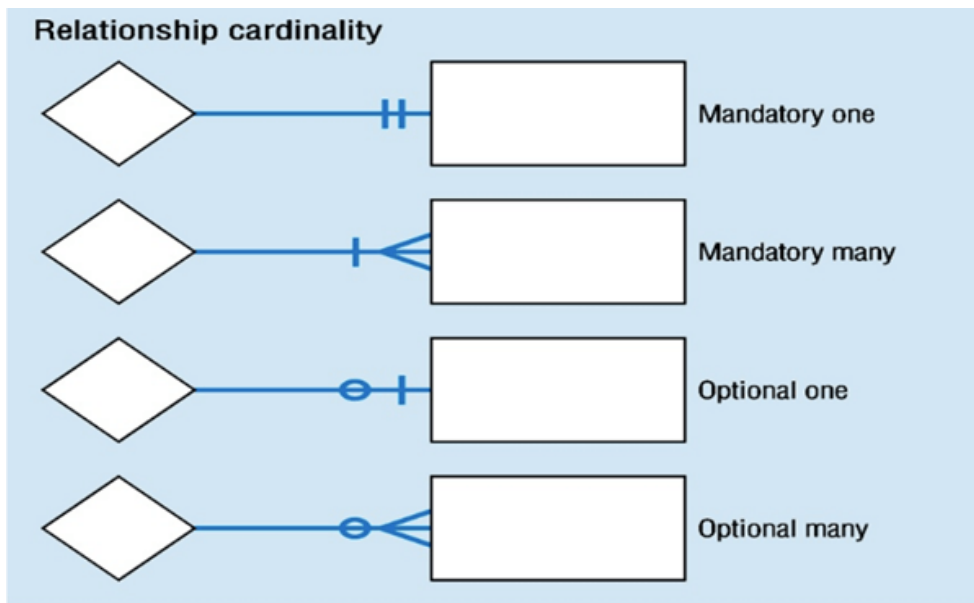


Topic – Structural of ER Model (ER diagram through cardinality)

On the basis of cardinality we can design er diagram –

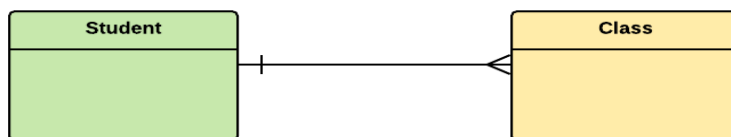


Relationship

i. One to one –



ii. One to many –

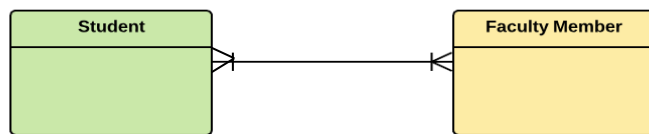


iii. Many to one –

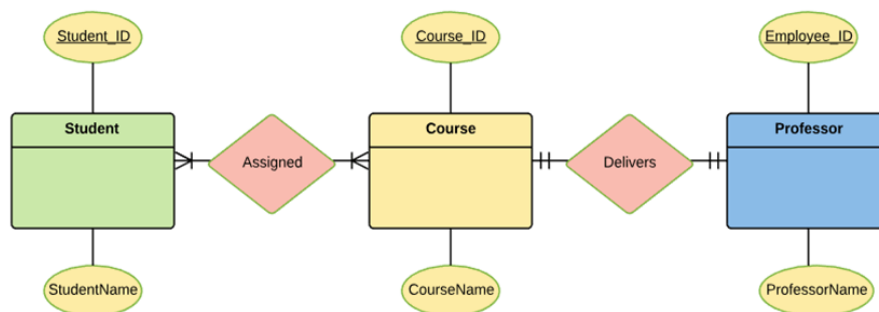


iv. Many to many

DATABASE CS-33, UNIT II, Topic – Structural of ER Model

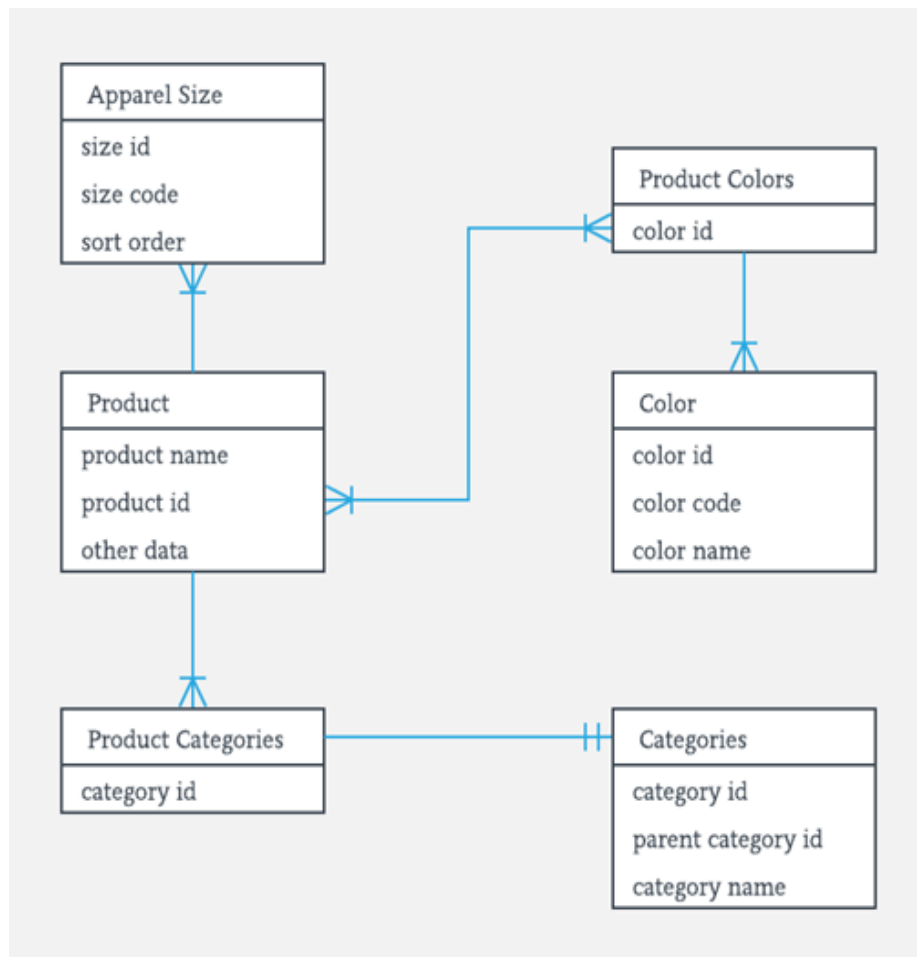


i. Example of cardinality ER diagram –



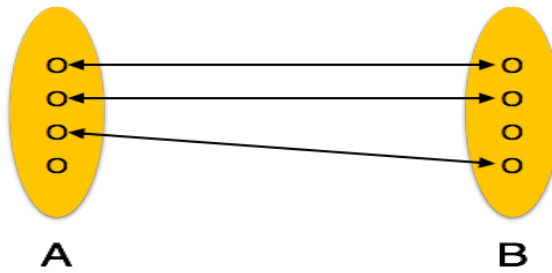
ii. Example of cardinality ER diagram –

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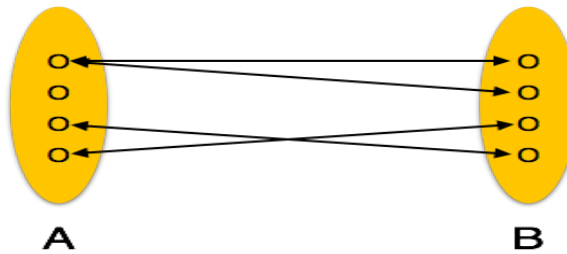


Symbol of cardinality set –

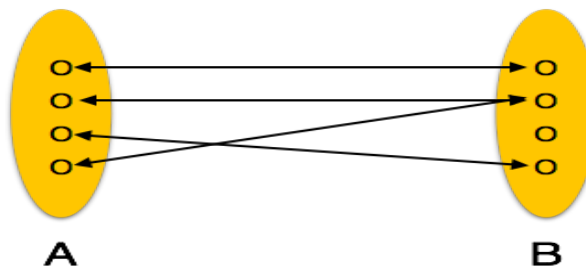
- i. One to one –



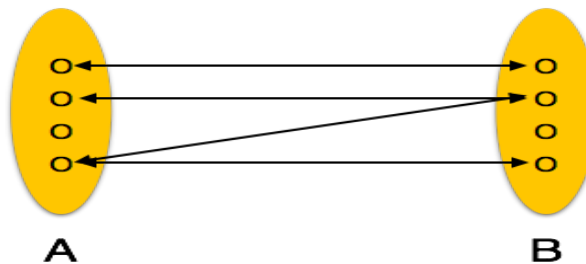
ii. One to many –



iii. Many to one



iv. Many to many



There are three term used in abstraction of entity set –

- i. **Generalisation** - It is the abstraction process of viewing set of objects as a single general class by concentrating on the general characteristics of the constituent sets while suppressing or ignoring their differences. It is the union

- of a number of lower level entity types for the purpose of producing a higher level entity type. For example student is a generalization of graduate or undergraduate students.
- ii. Specialisation – It is the abstracting process of introducing new characteristics to an existing class of objects to create one or more new classes of objects. This involves taking a higher level entity and using additional characteristics generating lower level entity. Specialisation may be seen as the reverse process of generalization.
 - iii. Aggregation – It is the process of compiling information on an object, thereby abstracting a higher level object. In this manner, the entity person is derived by aggregating the characteristics name, address and phone no.