

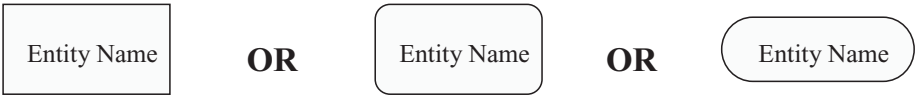
### Diagramming Conventions and Symbols

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Chapters 5, 6, and 7 have covered data modeling in sufficient detail. In these chapters, you were introduced to notations and symbols in use for representing business objects, attributes, relationships, and special cases of these components.

This appendix provides a summary of diagramming notations and symbols used in the entity-relationship data modeling technique. Wherever applicable, alternative notations are also shown to represent specific data model components.

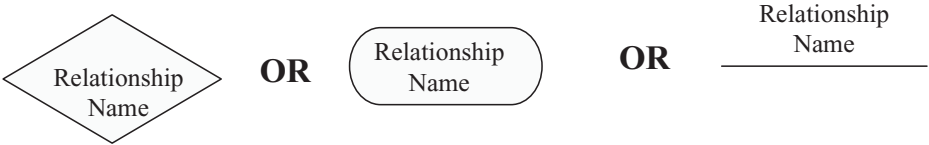
**Entity Type: Strong**



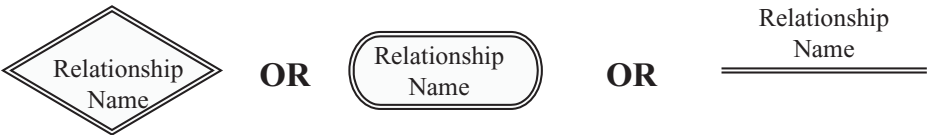
**Entity Type: Weak**



**Relationship: Strong**



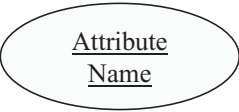
**Relationship: Weak**



**Attribute**



**Primary Key**



OR



**Multi-valued Attribute**



OR



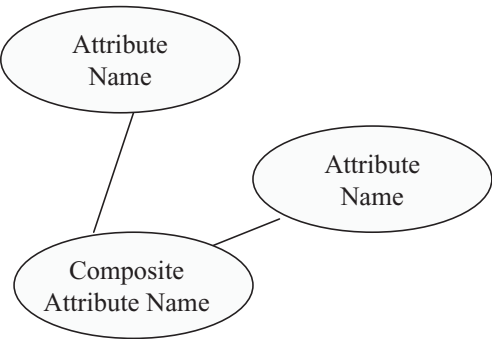
**Derived Attribute**



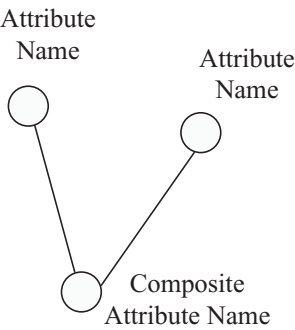
OR



**Composite Attribute**

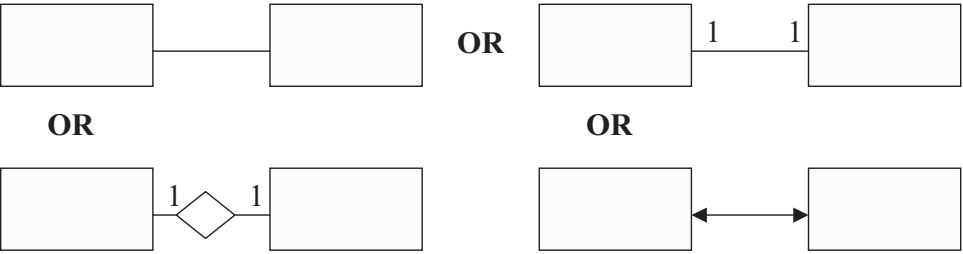


OR

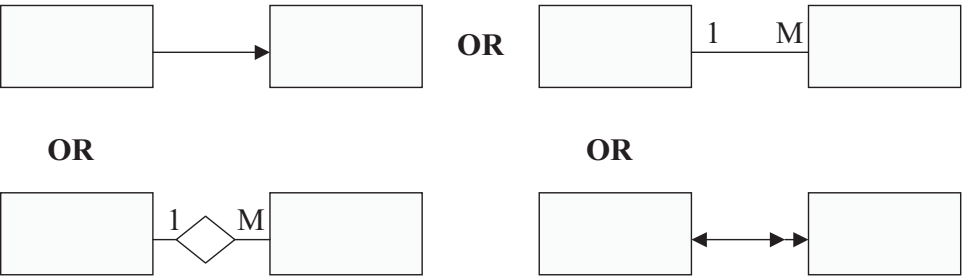


**Cardinality Indicators (Maximum cardinalities)**

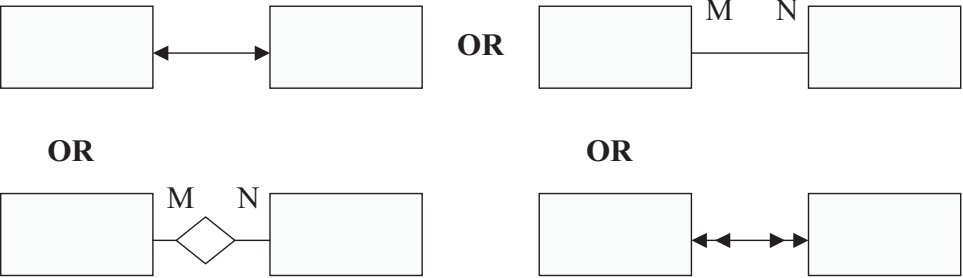
**ONE-TO-ONE**



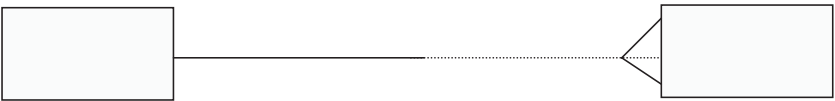
**ONE-TO-MANY**



**MANY-TO-MANY**

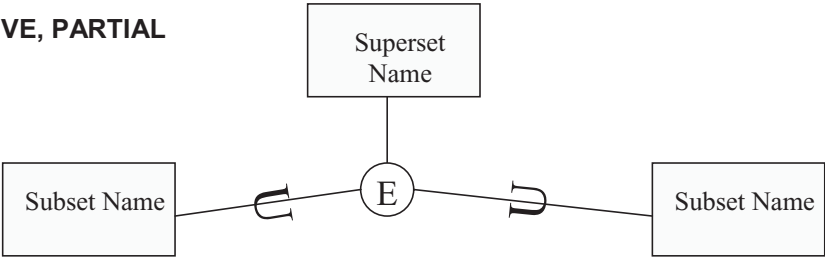


**Cardinality Indicators (Maximum and minimum cardinalities)**

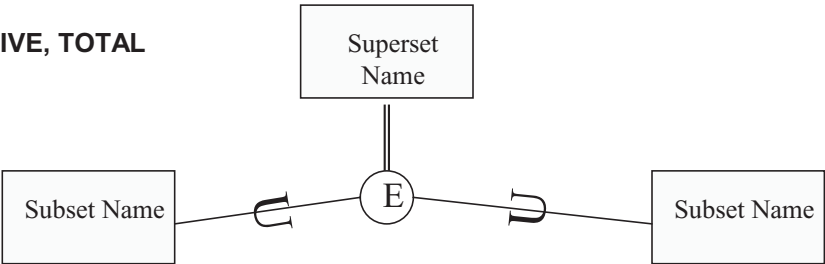


Generalization/Specialization

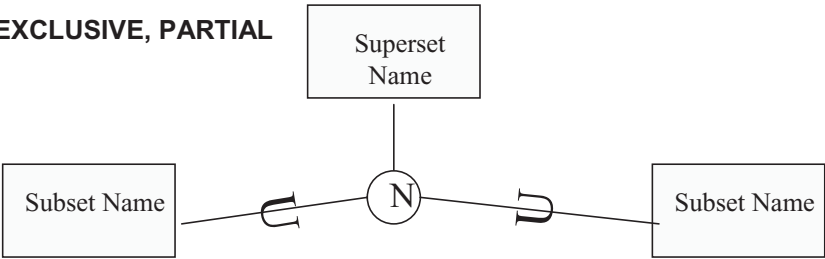
**EXCLUSIVE, PARTIAL**



**EXCLUSIVE, TOTAL**



**NON-EXCLUSIVE, PARTIAL**



**NON-EXCLUSIVE, TOTAL**

