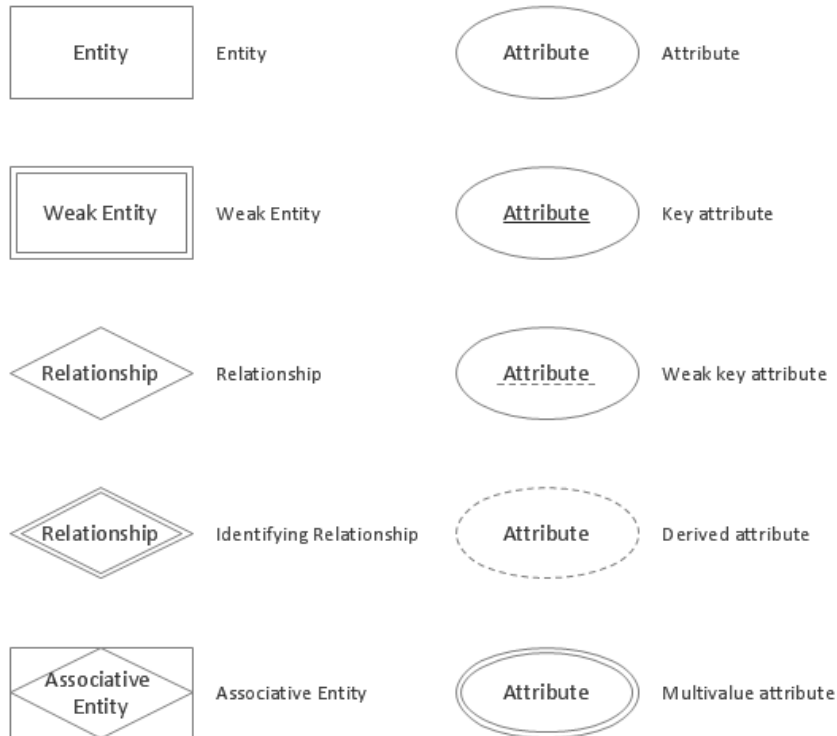


Chen ERD



Participations

Cardinality can be shown or hidden

Mandatory

_____	1	(0:1)
<u>1</u> _____	1	(1:1)
_____	N	(0:N)
<u>1</u> _____	N	(1:N)
_____	M	(0:M)
<u>1</u> _____	M	(1:M)

Optional

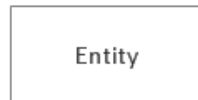
.....	1	(0:1)
.....	1	(1:1)
<u>1</u>	N	(0:N)
.....	N	(1:N)
<u>1</u>	M	(0:M)
<u>1</u>	M	(1:M)

Recursive Relationship

Cardinality can be shown or hidden

=====	1	(0:1)
=====	1	(1:1)
=====	N	(0:N)
=====	N	(1:N)
=====	M	(0:M)
=====	M	(1:M)

Crow's Foot ERD



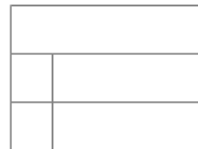
Entity
(with no attributes)



Entity
(with attributes field)



Entity
(attributes field with columns)



Entity
(attributes field with columns and
variable number of rows)

Relationships

(Cardinality and Modality)



Zero or More



One or More

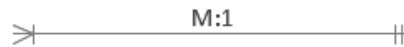


One and only One



Zero or One

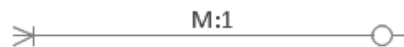
Many - to - One



a one through many notation on one side of a
relationship and a one and only one on the other



a zero through many notation on one side of a
relationship and a one and only one on the other



a one through many notation on one side of a
relationship and a zero or one notation on the other



a zero through many notation on one side of a
relationship and a zero or one notation on the other

Many-to-Many



a zero through many on both sides of a relationship

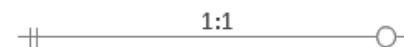


a one through many on both sides of a relationship

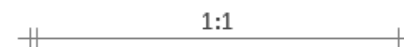


a zero through many on one side and a one through
many on the other

Many-to-Many



a one and only one notation on one side of a
relationship and a zero or one on the other



a one and only one notation on both sides