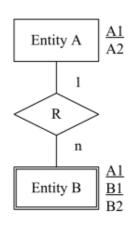
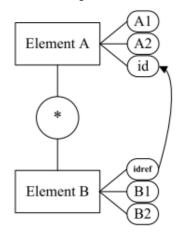
Entidad débil

EER Model



Schema Translation

DTD Graph



Relational Schema

Relation A(A1, A2) Relation B(*A1, B1, B2) DTD

<!ELEMENT A(B)*>

<!ATTLIST A A1 CDATA #REQUIRED>

<!ATTLIST A A2 CDATA #REQUIRED>

<!ATTLIST A id ID #REQUIRED>

<!ELEMENT B EMPTY>

<!ATTLIST B B1 CDATA #REQUIRED>

<!ATTLIST B B2 CDATA #REQUIRED>

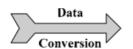
<!ATTLIST B idref IDREF #REQUIRED>

Relation A

<u>A1</u>	A2	
all	a21	
al2	a22	

Relation B

* <u>A1</u>	<u>B1</u>	B2
al l	bl1	b21



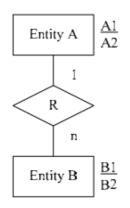
XML Document

<A A1="a11" A2="a21" id="1"> <B B1="b11" B2="b21" idref="1">

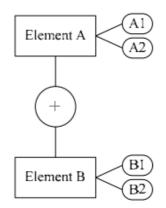
<A A1="a12" A2="a22" id="2">

Relación 1:N Obligatoria

EER Model







Relational Schema

Relation A(A1, A2) Relation B(B1, B2, *A1)

DTD

<!ELEMENT A(B)*>
<!ATTLIST A A1 CDATA #REQUIRED>
<!ATTLIST A A2 CDATA #REQUIRED>
<!ELEMENT B EMPTY>
<!ATTLIST B B1 CDATA #REQUIRED>
<!ATTLIST B B2 CDATA #REQUIRED>

Relation A

<u>AI</u>	A2
al l	a21
al2	a22

Relation B

<u>B1</u>	B2	*Al
bl l	b21	all
b12	b22	a12
ы3	b23	al2



Schema

Translation

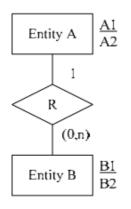
XML Document

Relacion 1:N Opcional

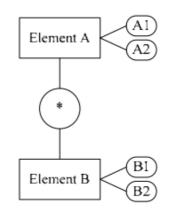
Schema

Translation

EER Model







Relational Schema

Relation A(A1, A2) Relation B(B1, B2, *A1)

Note: foreign key nullable

DTD

<!ELEMENT A(B)*>
<!ATTLIST A A1 CDATA #REQUIRED>
<!ATTLIST A A2 CDATA #REQUIRED>
<!ELEMENT B EMPTY>
<!ATTLIST B B1 CDATA #REQUIRED>
<!ATTLIST B B2 CDATA #REQUIRED>

Relation A

<u>A1</u>	A2
a[]	a21
al2	a22

Relation B

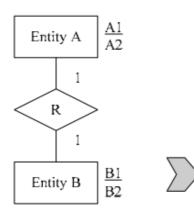
<u>BI</u>	B2	*Al
bll	b21	all
b12	b22	null



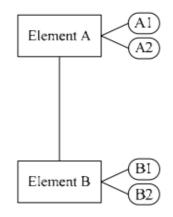
XML Document

Relación 1:1

EER Model



DTD Graph



Relational Schema

Relation A(A1, A2) Relation B(B1, B2, *A1)

DTD

<!ELEMENT A(B)>
<!ATTLIST A A1 CDATA #REQUIRED>
<!ATTLIST A A2 CDATA #REQUIRED>
<!ELEMENT B EMPTY>
<!ATTLIST B B1 CDATA #REQUIRED>
<!ATTLIST B B2 CDATA #REQUIRED>

Relation A

<u>A1</u>	A2
a11	a21
a12	a22

Relation B

<u>B1</u>	B2	*A1
b11	b21	a11
b12	b22	a12



Schema

Translation

XML Document

Entity A AI A2 Element X R A1 A2 Element A Element B B2 A id B id B id

Translation DTD

Schema

Relational Schema

Entity B

B1

B2

Relation A($\underline{A1}$, A2) Relation B($\underline{B1}$, B2) Relation R(* $\underline{A1}$, * $\underline{B1}$) <!ELEMENT A EMPTY>
<!ATTLIST A A1 CDATA #REQUIRED>
<!ATTLIST A A2 CDATA #REQUIRED>
<!ATTLIST A A_id ID #REQUIRED>
<!ELEMENT R EMPTY>
<!ATTLIST R A_idref IDREF #REQUIRED>
<!ATTLIST R B_idref IDREF #REQUIRED>
<!ELEMENT B EMPTY>
<!ATTLIST B B1 CDATA #REQUIRED>
<!ATTLIST B B2 CDATA #REQUIRED>

(B_idref

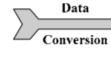
A_idref)

Relation A

<u>AI</u>	A2
all	a21
al2	a22

Relation B

<u>B1</u>	B2
bl l	b21
b12	b22



XML Document

<!ATTLIST B B id ID #REQUIRED>

<A A1="a11" A2="a21" A_id="1">
<B B1="b11" B2="b21" B_id="2">
<R A_idref="1" B_idref="2"></R>

<A A1="a12" A2="a22" A_id="3">
<B B1="b12" B2="b22" B_id="4">
<R A_id="3" B_idref="4"></R>

Relation R

* <u>A1</u>	* <u>BI</u>	
all	bI1	
al2	b12	