

Fra ER-Diagram til Relationel model i 7 step

STEP 1: For regular entity type E in ER schema, create a relation R that includes all the simple attributes, and component attributes of composite attributes. Select the primary key.

STEP 2: For weak entity type W in ER schema, with owner entity type E , create a relation R , include all simple attributes (or component attributes of composite attributes) of W as attributes of R . In addition, include the primary key attributes of the relation Q for the owner entity type E . Primary key is the combination of primary key of Q and partial key of R .

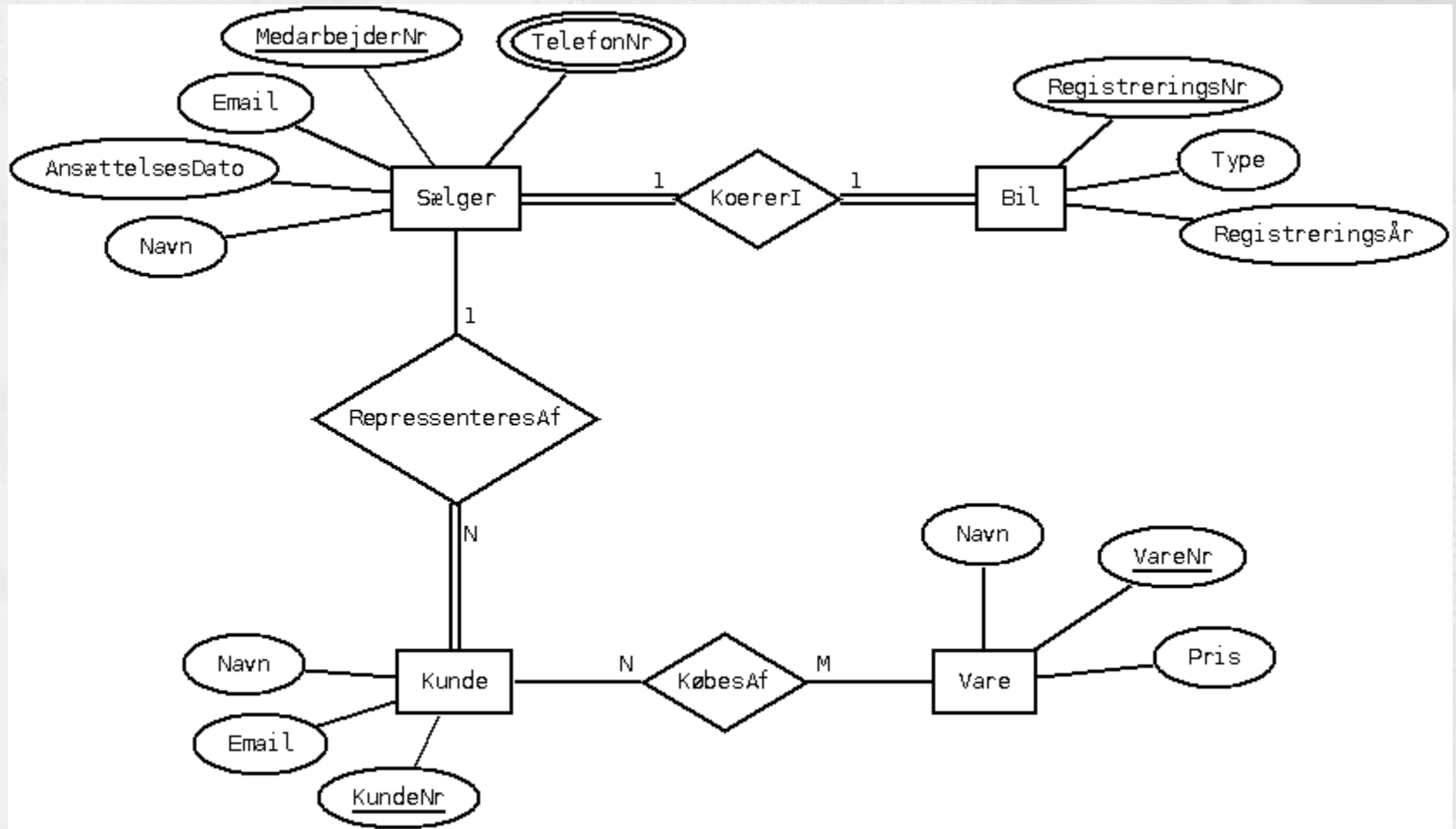
STEP 3: For 1:1 relationship X , suppose S and T are the relations for the entity types participating in it. Include primary key of T as foreign key of S . Include other attributes of the relationship X as attributes of S .

STEP 4: For 1:N relationship Y , suppose S relation corresponds to the entity type at the N -side, and T relation corresponds to the entity type at the other side. Include primary key of T as foreign key of S .

STEP 5: For $M:N$ relationship Z , create a new relation R to represent Z . Include simple attributes of Z in R . Include the primary keys of S and T as foreign keys of R , their combination forms the primary key of R .

STEP 6: For multivalued attribute A , create a new relation R that includes an attribute corresponding to A . Include primary key of the relation of the entity type having A as an attribute. Primary key is their combination.

STEP 7: For n -ary relationship type X , and $n > 2$, create a new relation R . Include primary key of each participating entity type's relation as foreign key of R . Include attributes of X as simple attributes of R .



Step 1

Bil
<u>RegistreringsNr</u>
Type
RegistreringsÅr

STEP 1: For regular entity type E in ER schema, create a relation R that includes all the simple attributes, and component attributes of composite attributes. Select the primary key.

Sælger
Navn
AnsættelsesDato
Email
<u>MedarbejderNr</u>
TelefonNr

Vare
Navn
VareNr
Pris

Kunde
<u>KundeNr</u>
Email
Navn

Step 2

- STEP 2: For weak entity type W in ER schema, with owner entity type E , create a relation R , include all simple attributes (or component attributes of composite attributes) of W as attributes of R . In addition, include the primary key attributes of the relation Q for the owner entity type E . Primary key is the combination of primary key of Q and partial key of R .
- Vi har ingen svage entiteter

Step 3

Bil
<u>RegistreringsNr</u>
Type
RegistreringsÅr
Sælger (FK)

Kunde
<u>KundeNr</u>
Email
Navn

Vare
Navn
VareNr
Pris

Sælger
Navn
AnsættelsesDato
Email
<u>MedarbejderNr</u>
TelefonNr

- STEP 3: For 1:1 relationship X, suppose S and T are the relations for the entity types participating in it. Include primary key of T as foreign key of S. Include other attributes of the relationship X as attributes of S.
- Indsætter Sælger som foreign key I Bil

Step 4

Bil
<u>RegistreringsNr</u>
Type
RegistreringsÅr
Sælger (FK)

Kunde
<u>KundeNr</u>
Email
Navn
Sælger (FK)

Sælger
Navn
AnsættelsesDato
Email
<u>MedarbejderNr</u>
TelefonNr

Vare
Navn
VareNr
Pris

STEP 4: For 1:N relationship Y, suppose S relation corresponds to the entity type at the N-side, and T relation corresponds to the entity type at the other side. Include primary key of T as foreign key of S.

Indsætter Sælger som FK I Kunde

Step 5

Bil
<u>RegistreringsNr</u>
Type
RegistreringsÅr
Sælger (FK)

Kunde
<u>KundeNr</u>
Email
Navn
Sælger (FK)

Sælger
Navn
AnsættelsesDato
Email
<u>MedarbejderNr</u>
TelefonNr

Vare
Navn
VareNr
Pris

KøbesAf
VareNr (FK)
<u>KundeNr (FK)</u>

- STEP 5: For M:N relationship Z, create a new relation R to represent Z. Include simple attributes of Z in R. Include the primary keys of S and T as foreign keys of R, their combination forms the primary key of R.
- Indsætter tabellen købes af

Step 6

Bil
<u>RegistreringsNr</u>
Type
RegistreringsÅr
Sælger (FK)

Kunde
<u>KundeNr</u>
Email
Navn
Sælger (FK)

Sælger
Navn
AnsættelsesDato
Email
<u>MedarbejderNr</u>
TelefonNr

Vare
Navn
VareNr
Pris

KøbesAf
VareNr (FK)
KundeNr (FK)

TelefonNr
Nr
Sælger (FK)

- STEP 6: For multivalued attribute A, create a new relation R that includes an attribute corresponding to A. Include primary key of the relation of the entity type having A as an attribute. Primary key is their combination.
- Opretter tabellen TelefonNr

Step 7

- STEP 7: For n-ary relationship type X, and $n > 2$, create a new relation R. Include primary key of each participating entity type's relation as foreign key of R. Include attributes of X as simple attributes of R.
- Vi har ikke nogen n-ary relationer

- Gentag med løsningen på Tennisopgaven

