

INF1300

Introduksjon til databaser

Dagens tema:

- **Eksempel**
- **Klisjéer (mønstre)**
- **Tommelfingerregler**

Eksempel (1)

1. The system shall give an overview of customers' purchases, i.e., what goods they bought, how much of each item they bought and when the purchases were made.
2. Products are divided into product groups.
3. Each department is responsible for a number of product groups.
4. Each department has a sales staff.
5. The country is divided into sales districts comprising of one or more municipalities.
6. In a sales district several sellers may operate, but one seller can only operate in one sales district. Different sellers may have sales responsibility for the same customer, but these sellers must represent different departments.
7. It is a requirement that the order system should be able to provide information about current and past product list prices, up to 2 years back in time.

Eksempel (2)

8. In addition to storing information about the current assignment of sellers to sales districts (see item 6), the system should also store data about any previous assignments.
9. The products are normally sold at the list price applicable when delivery occurs. Sometimes, however, the seller and the customer can agree on the price to be the current list price at the time the order is placed.
10. Before accepting an order, a check is performed to see if the sum of a customer's balance and the value of the new order exceeds customer's credit limit.
11. Some customers have a discount deal that gives them a certain percentage off the price of individual product groups.
12. The products are normally supplied from the nearest store. If this store is unable to supply products as required, larger or smaller parts of the order are supplied from other stores. On the order confirmation customers are informed from which stores the products are delivered.

Eksempel (3)

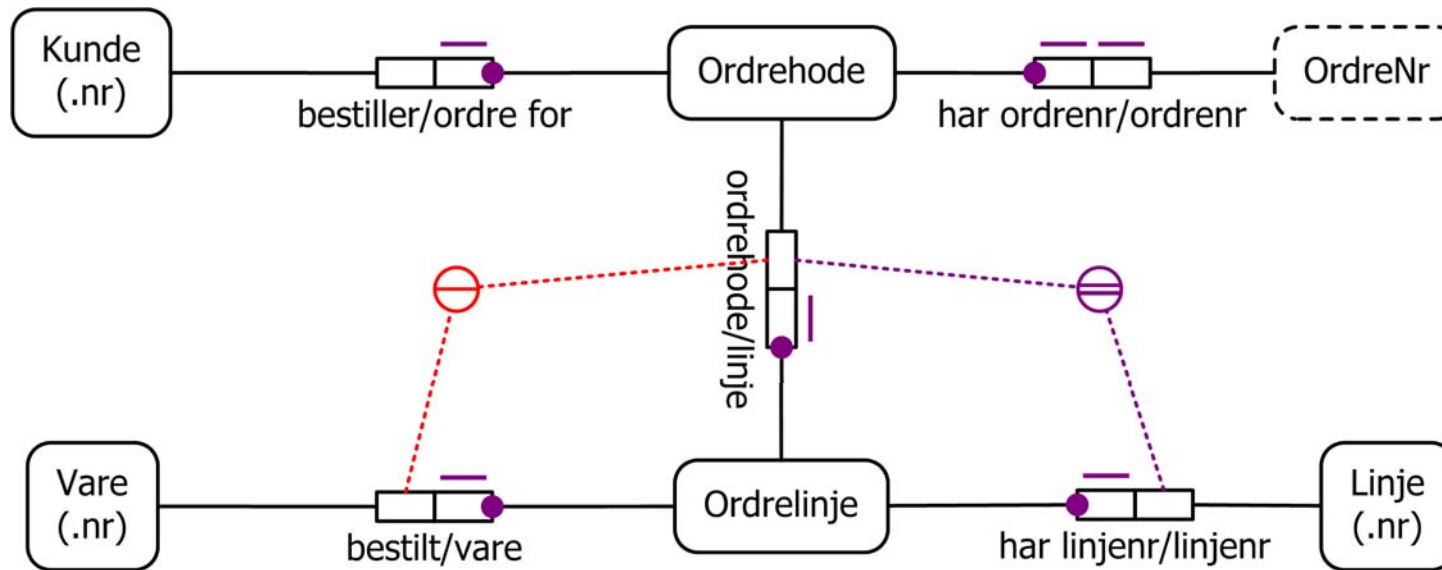
13. The system must know in which shelves of each store the products can be found so that it can produce suitable pick-up lists.
14. The product range includes products that can be replaced by other products which from the customer point of view are equivalent. If there is too little of a product in a store, the system should make the order recipient aware of the equivalent products.
15. Some of the products are composed of other products in the range. If there is too little of product in a store, the system must be able to tell the recipient that the product can be composed of other products (possibly in stock) or can be chosen from a complex product (possibly in stock).
16. Some of the products are "yard-products". At any time, the company focuses on keeping track of the remains so that the order recipient could potentially sell the rest at full price instead of cutting off a major roll.
17. The organization is divided into departments in a tree-like structure.

Informasjonsmodellklisjéer

Standardkonstruksjon som går igjen i modeller uavhengig av interesseområde

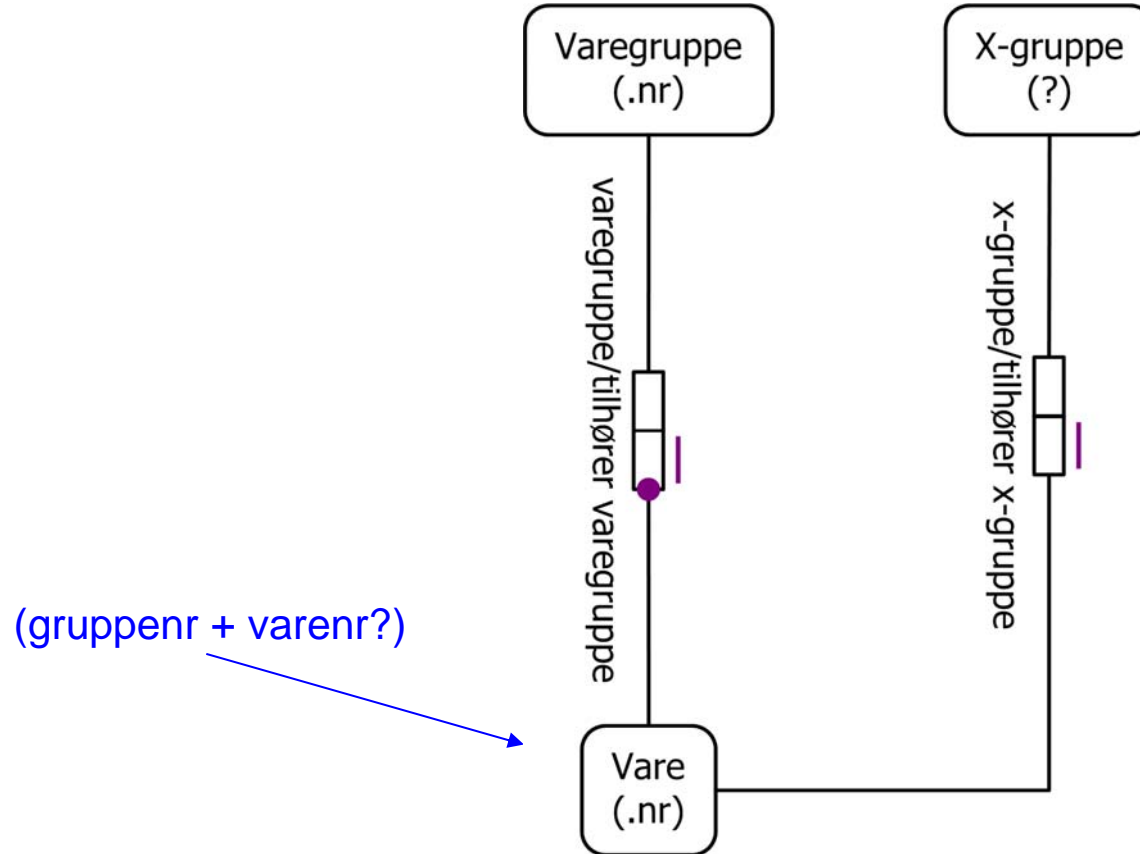
- Hode/linje-klisjéen
- Gruppeklisjéen
- Standard-med-unntak-klisjéen
- Beholdningsklisjéen
- Plasseringsklisjéen
- Hierarkiklisjéen
- Hierarkisk referansemåte
- Erstatningsklisjéen
- "Bill-of-material"-klisjéen
- Individualiseringsklisjéen
- Tidsakseklisjéen
- Frys-klisjéen

Hode-linje-klisjéen

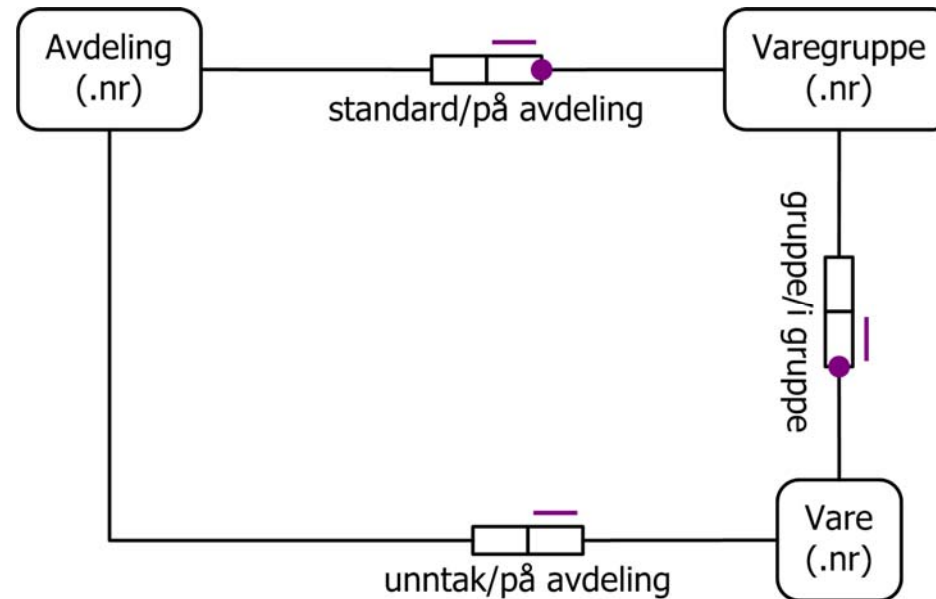


Ekstern entydighet på bestilt/ordrehode dersom en vare ikke får gjentas på flere ordrelinjer innen en ordre

Gruppeklijée

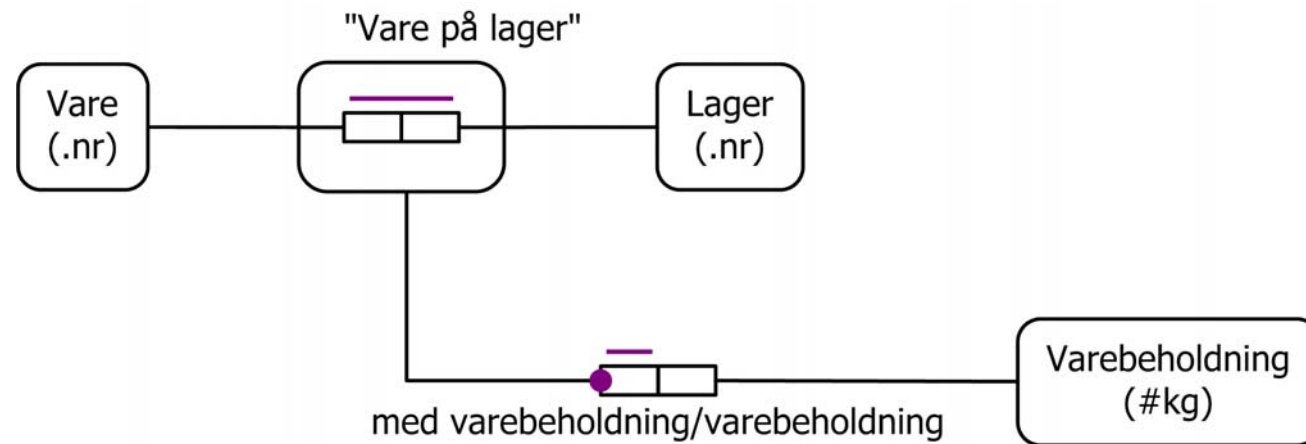


Standard-med-unntak-klisjéen

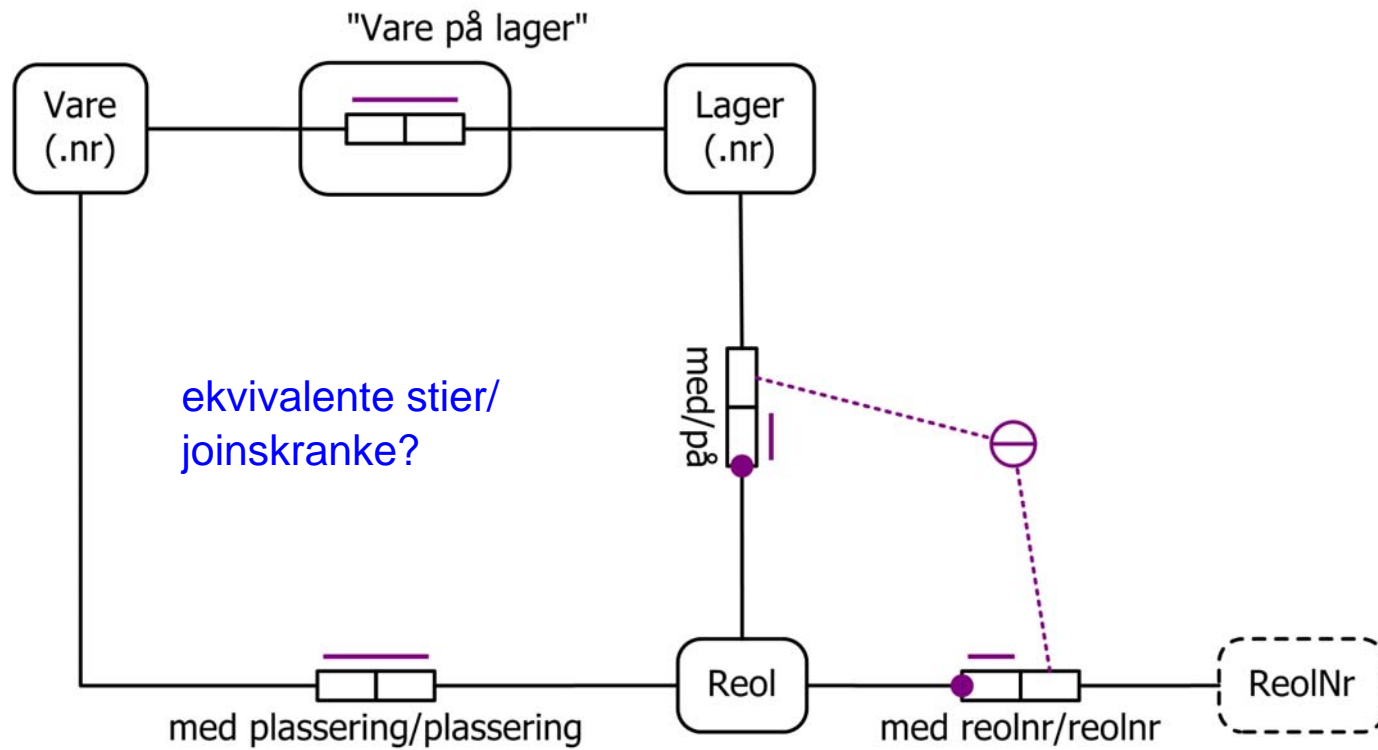


For å finne hvilken avdeling som har ansvar for en vare, sjekker man først om varen har en unntaksrelasjon

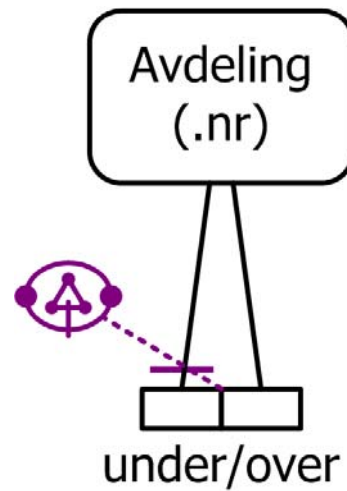
Beholdningsklisjéen



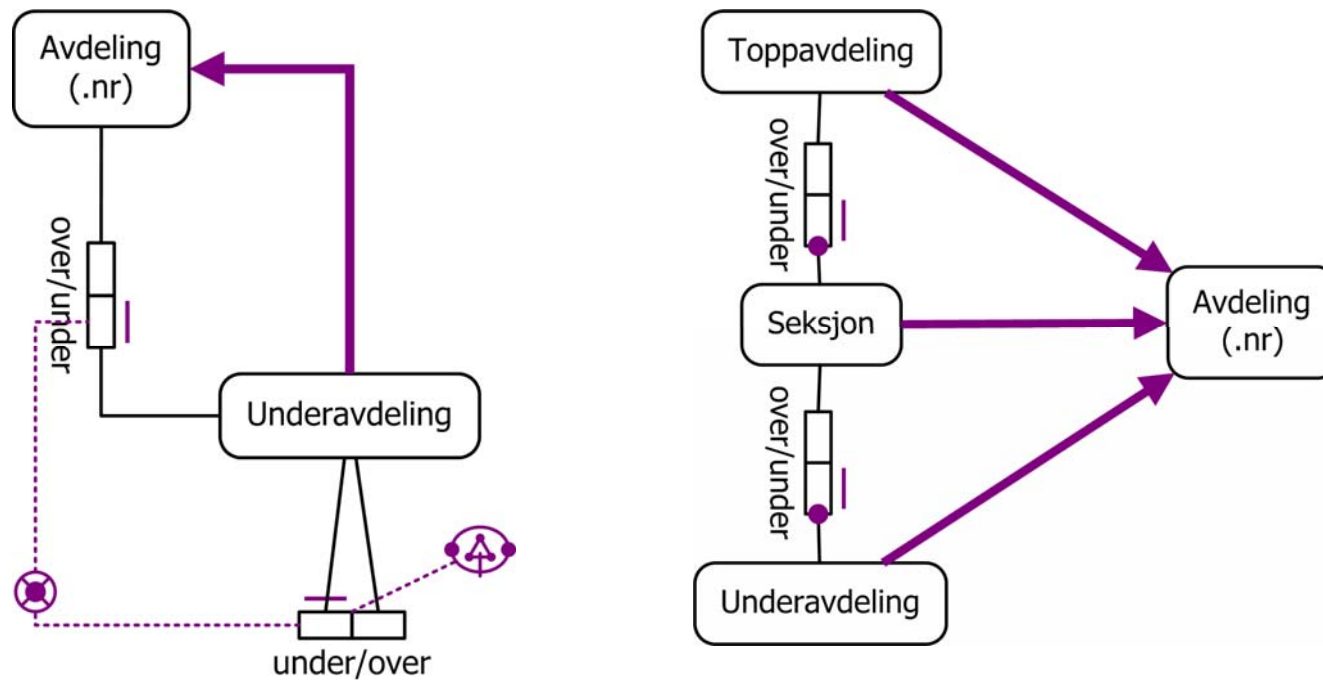
Plasseringsklisjéen



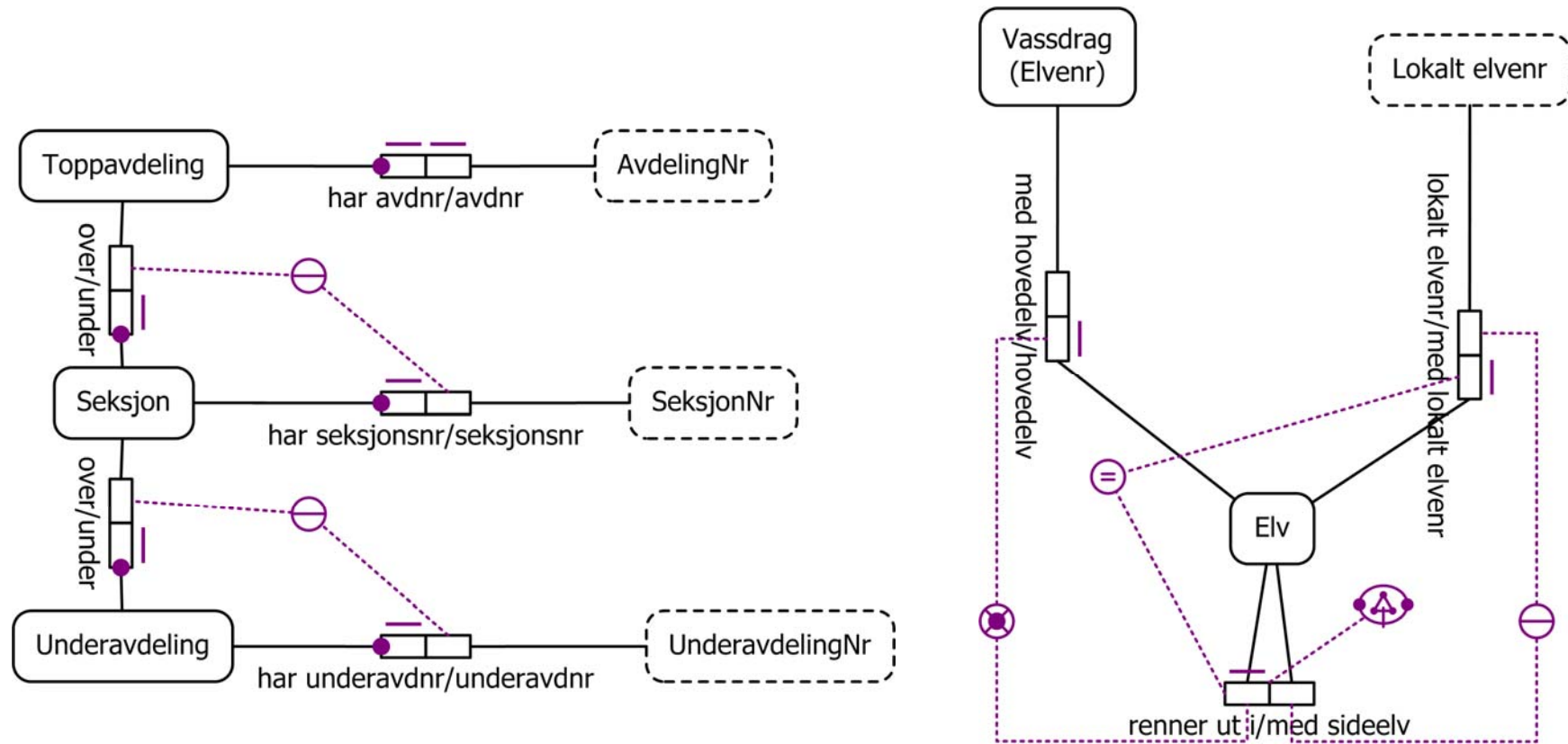
Hierarkiklisjéén enkel variant



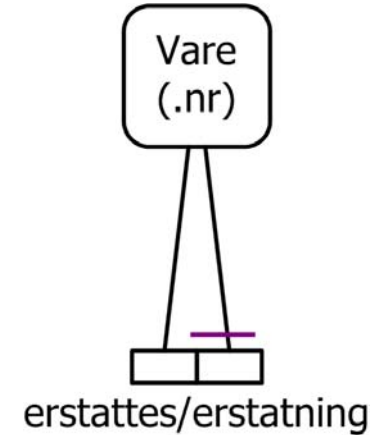
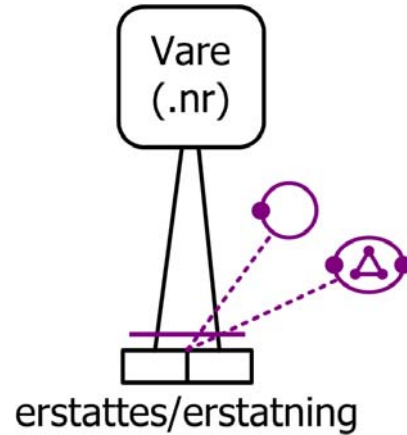
Hierarkiklisjéén spesielle varianter



Hierarkisk referanse måte



Erstatningsklisjéén

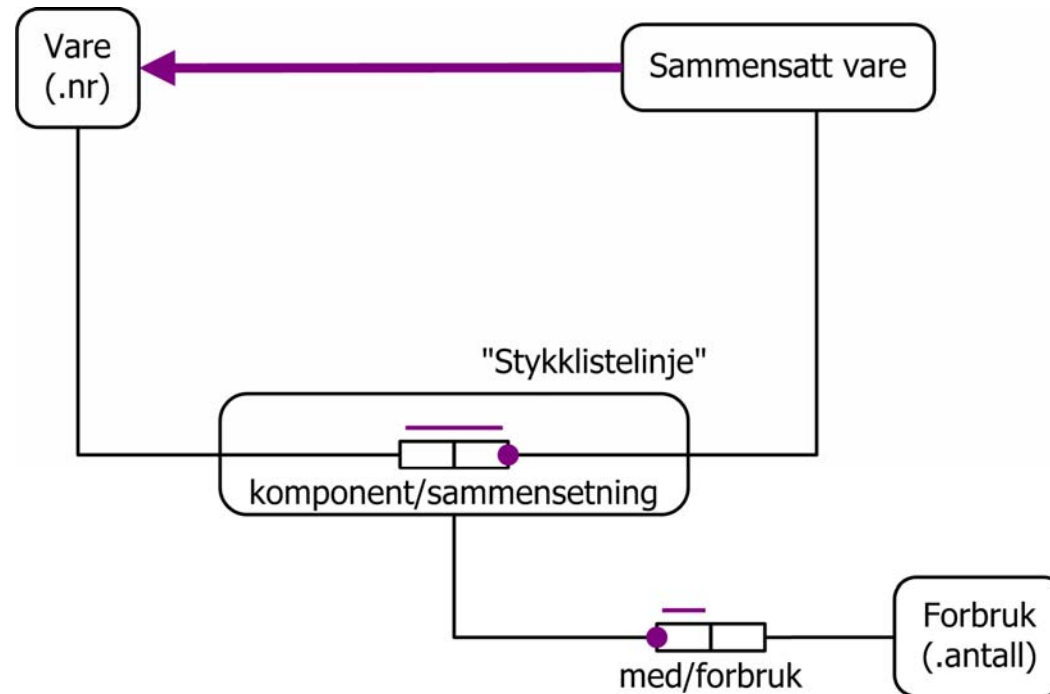


erstatte	erstatning
v1	v1
v2	v2
v3	v3
v1	v2
v2	v1
v1	v3
v3	v1
v2	v3
v3	v1

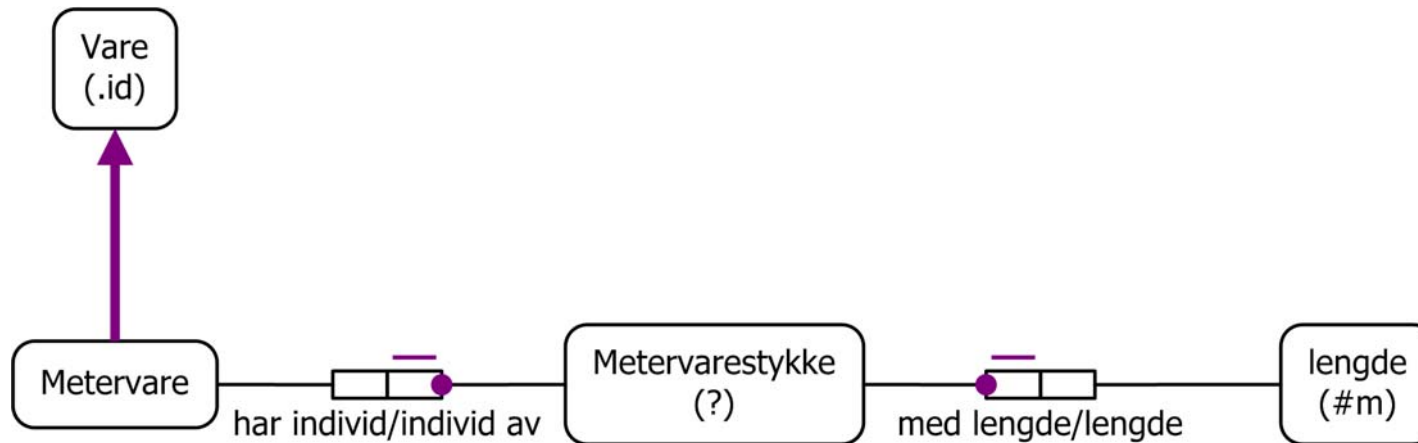
erstatte	erstatning
v1	v2
v1	v3

familjeløsningen

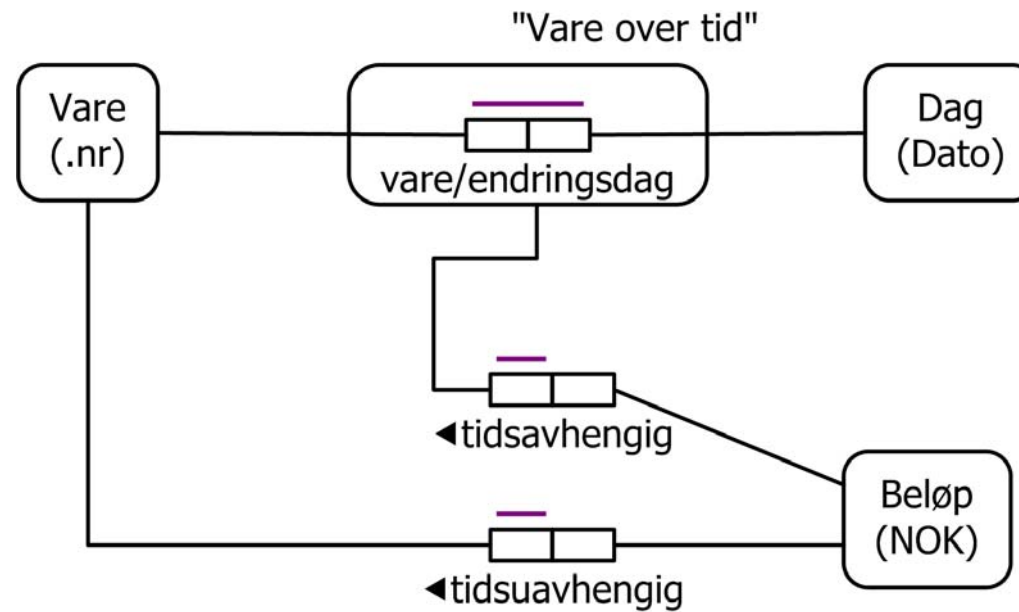
"Bill-of-material"-klisjéen



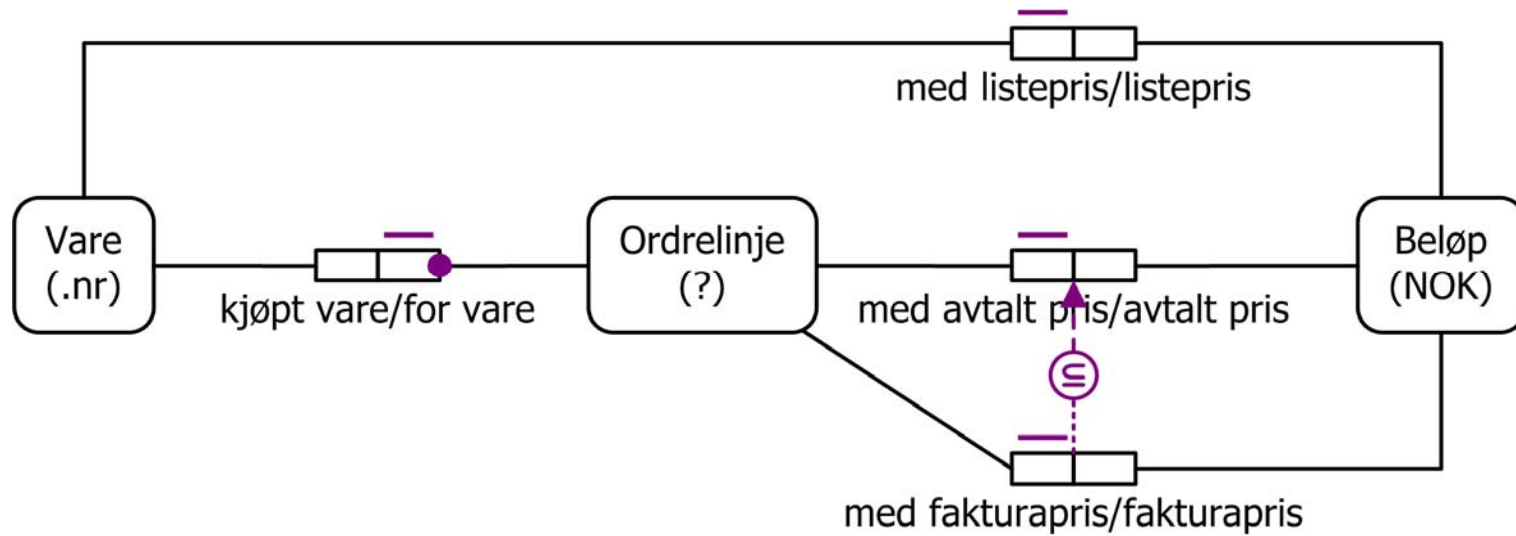
Individualiseringsklisjéen



Tidsakseklsjéén



Frys-klisjéén



Tommelfingerregler

- Vær skeptisk overfor «mange-til-mange» (lange piler) og «en-til-en» (to korte piler)
- Total rolle står vanligvis på samme side som entydighetsskranken
- Entydighetsskranken omfatter sjelden mål, vekt, antall o.l.
- Entydighetsskranken omfatter (nesten) aldri to tidspunkter
- Manglende total rolle kan skjule et underbegrep
- Dersom flere stier fører fra et begrep til et annet, sjekk om det finnes overflødige faktatyper eller om vi har ekvivalente stier/ joinskranker
- Ikke formaliser fritekst det ikke skal søkes i
- Vær skeptisk overfor begrepsdannelser og underbegreper uten grupperende roller

Tommelfingerregler (forts.)

- Roller som spilles av begrepsdannelser har som oftest en entydighetsskranke (intern eller ekstern)
- Bruk standardiserte referansemåter hvis de finnes
- Dersom to begreper har samme referansemåte, bør de sannsynligvis tilhøre samme underbegrepsfamilie
- Ikke baser informasjonsbærende referansemåter på ustabile fakta
- Gjør informasjonsmodellen robust mot forretningsmessige og politiske endringer (av forretningsreglene i interesseområdet)