15V

Lektion 7

Mandag 19. september 2016

Litteratur: [Kiefer et al] side 69-85 (kun kursorisk)
[Bagui og Earp] side 6-17 (kun kursorisk)

Emner:

Opfølgning på performancedagene

- Indeks - overheads

Logiske modeller

- Domæne klassediagrammer i UML
- E/R diagrammering
- Sammenligning mellem de to ting

Normalisering

- Hvorfor
- Functional dependencies
- Normalformer

Historik

- Hvad er det
- Hvordan kan det implementeres
- Et eksempel (script history på fronter)

Logik bag og opbygning af select-sætninger.

Opgaver: Exercise 7.1, 7.2 og 7.3 (7.3 udleveres)

Læsning til næste gang:

Overheads om databasedesign

Bemærkninger:

Exercise 7.1

This is an exercise in E/R-diagramming. The first shows a normal modelling situation and the second shows a challenging modelling problem. You are asked to make a small E/R Diagram to each of the 2 problems

Problem 1:

This is the requirement specification for a Hotel reservation IT-system:

The system is a booking system for hotel rooms.

1. The hotels have a lot of rooms, each room has a room number. There are different types of rooms (single, double, luxury, etc)
2. The customers can book a number of hotel rooms for a number of nights.
3. During the booking the customer decides which types of rooms, he/she wants to book and the number of rooms of each type.
4. The booking is only possible if the number of rooms of the specified types are available for all the specified nights.
5. On the day of arrival the hotelmanager decides which exact roomnumbers the customer should use for the stay. The choice of rooms is also registered in the system

If I change the requirements in such a way, that the customer books the exact rooms, when he is doing the booking, will that change the E/R diagram?

Problem 2:

A Radio/TV store (like EL-giganten) is selling a lot of different electronic equipment (radio, TV, GPS, computer....). The store wants to be able to sell these things on the internet as well, so they want people to be able to search through their list of goods. All the goods have some common attributes (price, number of items on the stock), but each type of goods has also attributes of their own. For example computers have information about RAM, size of harddrive, graffic card and so on.

Exercise 7.2

This is an exercise in changing the history script (can be found at fronter). You are asked to change the definition of the table histprice. Now the table has a fromdate and a todate – change it, so it just has a fromdate .

Change the procedures spfindprice and spupdateprice to use the new table-definition

Opgave 7.3

Denne opgave anvender tabellerne du kan finde i scriptet opgave7.3 på fronter. Kør scriptet ind i en ny database – vi skal også bruge den senere i kurset.

Start med at se på tabellerne – brug evt. Database diagram.

Lav følgende SQL-queries

1. Find navne på kunder og de lande, hvorfra leverandøren af de købte varer stammer.
2. Find navne på de kunder, der har mindst en faktura.
3. Find de kunder, der har mindst 2 fakturaer (invoices).
4. Find navne på de kunder, der ikke har nogen fakturaer
5. Find det største antal forskellige produkter som nogen kunde har købt (bare tallet).