Data-Warehouse-Technologien

Exercise 4

1. Describe the data cube, how is it defined and which operations does it support? Present chosen examples.

2. Summarize and compare possible implementations of the multi-dimensional data cube in a DWH.

3. Define the terms star-schema and snowflake-schema.

4. Explain different types of summation of facts and show suitable examples for them. Which further characteristics of facts have to be fulfilled?

5. Describe different forms of hierarchies w.r.t. dimensions in a DWH. Give an example for each form (except the dimension time).

6. Describe a relational implementation of such a classification hierarchy.

7. Classify and define aggregate functions.

8. Define the elements of the ME/R-Modelling and give an example.

9. For the next exercise, the departments for a discounter have to be modeled to store their data in a database. To this end, construct an ER-schema. Possible departments are:
   
   (a) staff management,
   (b) sales data,
   (c) logistic management,
   (d) quality management,
   (e) …