Serie 6
Anfragen an XML und Suchmaschinen 2008

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1. Confirm that the definition of :::-conditions is independent of the order of the defining ::-conditions.

2. Discuss useful H2O-indices for the following PUPIL.h2o file:
   M(PUID, NAME, FIRSTNAME, CLASS, M(SUBJECT, L(MARK)))
   Consider the conditions:
   a) SUBJECT=”abc”
   b) SUBJECT:: SUBJECT=”abc”
   c) SUBJECT::: SUBJECT=”abc”
   d) mit MARK=x
   e) mit SUBJECT:: MARK=x
   f) mit MARK:: MARK=x
   g) mit MARK::: MARK=x

3. Define indices for a students file
   STUD.h2o: M(STID, NAME, FIRSTNAME, LOC, M(SUBJECT,PROF, MARK), L(HOBBY)…), which support the following conditions:
   a) NAME=“xyz“
   b) FIRSTNAME=“abc“
   c) NAME=“xyz“ i FIRSTNAME=“abc“
   d) HOBBY[1]=”chess”
   e) HOBBY:: pos(HOBBY)=10

4. a) Define a MARK- and PROF-index with and without “false drop” problem.
   b) Define an index without “false drop” problem for the condition
   SUBJECT:: SUBJECT=”wx” i PROF=”yz”

5. How we can generate a H2O-database for a given ER (Entity-Relationship)-diagram?

6. Which page sizes for NAME-index you have to choose, if STUD.h2o contains 10 million records in 500 thousand pages and a name needs 9 byte in average. Consider a simple and a two level index.