

Serie 8
Anfrageoptimierung 2007/08
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1. Restructure the following three 3.NF- relations to a "hierarchical 3.NF-structure" only by using comma and stroke operation:

Given:

MAINDEPT: M(MDNO, MMGR)

DEPT: M(DNO, DNAME, MGR, MDNO)

EMP: M(ENO, NAME, FIRSTNAME, LOC, DNO)

wanted:

M(MDNO, MMGR, M(DNO, DNAME, MGR, M(ENO, NAME, FIRSTNAME, LOC)))

2. Sort the EMP-file of exercise 1 efficiently by a gib-aus-mit-construct by NAME and FIRSTNAME.

3. Give for each hierarchical level (hl) of the tabment

DAT.xml: M(A1, A2?, A3, M(B1, B2?, B3?, M(C1, C2)), M(D1, B2))

the superordinated hierarchical level (suphl). Consider DAT.xml at first as a source structure and second as a target structure of restructuring.

4. Give for the following restructurings, the restructuring tables (number of source level with corresponding numbers of target levels):

Q: M(A1, A2, A3, M(B1, B2, B3, M(C1, C2)), M(D1, B2)) to

a) M(A2, B(A3, B1))

b) M(A3, M(A2, M(A1, M(C2, B2))))

c) M(A2, M(B2))

d) M(C2, M(B2))

e) M(B2, M(B1), M(D1))

5. Give for the following restructurings, the restructuring tables, select in source structure, if it is possible, to improve restructuring tables:

Q: M(A1, A2, A3?, A4?, M(B1, B2?, B3?, M(C1, C2)), M(D1, B2)) to

a) M(A3, M(A4))

b) M(A1, M(A3, M(A4)))

c) M(B1, M(B2, B3))

d) M(A4, B(A3, A1))