Serie 5
Anfragen an XML und Suchmaschinen 2007

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1. Formulieren Sie die folgenden SQL-Anfragen in OttoVonG:

(a)
```
select  *
from    emps.xml e
where   e.SALARY =  max(  select  e2.SALARY
                          from    emps.xml e2 )
```

(b)
```
select  *
from    emps.xml e
where   e.SALARY = max (  select  e2.SALARY
                          from    emps.xml e2
                          where   e2.dno=3 )
```

(c)
```
select  e.name
from    emps.xml e
where   dno in      (  select  d.dno
                       from    depts.xml d
                       where   d.name like "S%" )
```

(d)
```
select  *
from    emps.xml e
where   e.SoldItems ⊇
            (select  i.itemno
             from items.xml i
             where  i.hTD > e.speciality )
```

(e)
```
select  *
from    emps.xml e
where   e.SALARY =  max(  select  e2.SALARY
                          from    emps.xml e2
                          where   e.dno = e2.dno )
```

2. Formulieren Sie folgende OttoVonG-Anfrage in SQL:

```
ext     d:=depts.xml
ext     e:=emps.xml at loc
mit     eno:: e/dno = d/dno
mit     count(L(eno)) < 10
```

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 restrucurring 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))