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%Songs that appeared on the CD rated number 1 in 2003%

qQUESTION_1:=

```
select  A.songCode,B.songTitle, A.trackNumber
from    composedOf A, topCDs C, song B
where   A.cdCode = C.cdCode and A.songCode = B.songCode and C.rating = 1 and C.year = 2003;
%
```

%CDs rated top10 for each group results in desc order of numberOfTop10CDs%

qQUESTION_2:=

```
select  A.groupCode, A.groupName, count(distinct T.cdCode) as numberOfTop10CDs
from    musicalGroup A natural join cd B natural join topCDs T
where   T.rating <= 10
group by      A.groupCode, A.groupName
order by      numberOfTop10CDs desc;
%
```

%TrackCount for each cd from 2000 and beyond%

tC:=

```
select  T.year, T.cdCode, count(distinct C.trackNumber) as trackCount
from    cd T, composedOf C
where   C.cdCode = T.cdCode and T.year > 1999
group by      T.year, T.cdCode;
```

%The max, min and avg of number of tracks published since 2000%

qQUESTION_3:=

```
select  X.year, max(X.trackCount) as maxNumber, min(X.trackCount) as minNumber, avg(X.trackCount)
as avgNumber
from    tC X
group by      X.year
order by      year asc;
%
```

%Setting up abTable and bTable for division%

group:=

```
select  G.groupCode, G.groupName, C.cdCode
from    musicalGroup G, cd C
where   G.groupCode = C.groupCode;
```

abTable:=

```
select  G.groupCode, G.groupName, R.clientID
from    group G, rentedBy R
where   G.cdCode = R.cdCode;
```

```
bTable:=  
select  A.clientID  
from    client A  
where   A.address = 'Detroit';
```

```
%Division part  
qQUESTION_4:=  
select  distinct T.groupCode, T.groupName  
from    abTable T  
where   not exists  
        (select *  
         from bTable B  
         where not exists  
              (select *  
               from abTable AB  
               where AB.groupCode=T.groupCode and AB.clientID=B.clientID));  
%
```

%Difference problem, get all artist that have written a top5 song and subtract all the artists that are currently members%

```
qQUESTION_5:=  
(select A.artistID, A.firstName, A.lastName, A.yearBorn from artist A, writtenBy B, topSongs C where  
A.artistID = B.artistID and B.songCode = C.songCode and C.rating <= 5 order by lastName, firstName  
desc)  
except  
(select A.artistID, A.firstName, A.lastName, A.yearBorn from artist A, member B where A.artistID =  
B.artistID and B.toDate = 0 order by lastName, firstName desc);
```

Q1

songCode/char	songTitle/char	trackNumber/numeric
'S17'	'Days Go By'	1
'S18'	'Another Day in Paradise'	2
'S1'	'Sweet Dreams'	3
'S2'	'Goodnight'	4
'S7'	'Breathless'	5
'S19'	'Smile'	6
'S8'	'My Oh My'	7
'S9'	'Ooh La La'	8
'S11'	'Hot As Hell'	9
'S12'	'Goldilocks'	10

Q2

groupCode/char	groupName/char	numberOfTop10CDs/numeric
'G4'	'Great Snakes'	4
'G5'	'Keith Urban'	2
'G3'	'Thundering Typhoons'	2
'G2'	'Sweet Symphony'	2
'G1'	'Deutsch Moss'	1

Q3

year/numeric	maxNumber/numeric	minNumber/numeric	avgNumber/numeric
2,000	7	5	6
2,001	8	1	5
2,002	9	9	9
2,003	10	2	3.625

Q4

groupCode/char	groupName/char
'G2'	'Sweet Symphony'
'G6'	'Beyond'

Q5

artistID/char	firstName/char	lastName/char	yearBorn/numeric
'A2'	'Heidi'	'Helmut'	1,945
'A13'	'Jim'	'Kate'	1,970
'A8'	'Lisa'	'Raymond'	1,973