Name: Tiffany Kawamura

Screenshot of Query in WinRDBI

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SQL M4-TiffanyKawamura.sql

%TIFFANY KAWAMURA 10/16/2023
%------------------------------------------------------------------------
% QUERY 1. Which songs appeared on the CD rated number one in 2003? 'S17' Day's Go By
% Order results in ascending order on track number.
% (songCode, songTitle, trackNumber)
%topSongs, song(songTitle), composedOf(trackNumber)
%------------------------------------------------------------------------

query1 :=
SELECT S.songCode, S.songTitle, C.trackNumber
FROM topCDs T, song S, composedOf C
WHERE T.cdCode=C.cdCode AND S.songCode=C.songCode AND T.year=2003 AND T.rating=1
ORDER BY C.trackNumber asc;


%------------------------------------------------------------------------
% QUERY 2. For each group in the database, find the number of CDs rated in the top 10.
% Order the results in descending order of the number of top 10 CDs.
% (groupCode, groupName, numberOfTop10CDs)
% musicalGroup(groupCode, groupName)
%------------------------------------------------------------------------

query2 :=
SELECT M.groupCode, M.groupName, COUNT(*) AS numberOfTop10CDs
FROM musicalGroup M, topCDs T, cd C
WHERE M.groupCode=C.groupCode AND T.cdCode=C.cdCode AND rating<11
GROUP BY M.groupCode, M.groupName
ORDER BY numberOfTop10CDs desc;


%------------------------------------------------------------------------
% QUERY 3. What is the maximum, the minimum, and average number of tracks on CDs published since the year 2000?
% Order the results in chronological order by year.
% (year, maxNumber, minNumber, avgNumber)
%------------------------------------------------------------------------
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% (year, maxNumber, minNumber, avgNumber)
%---------------------------------------------------------------------------
trackCount :=
SELECT cdCode, COUNT(*) AS trackNumber
FROM composedOf
GROUP BY cdCode;

query3 :=
SELECT C.year, max(TC.trackNumber) AS maxNumber, min(TC.trackNumber) AS minNumber, avg(TC.trackNumber) AS avgNumber
FROM cd C, trackCount TC
WHERE C.year>1999 AND C.cdCode=TC.cdCode
GROUP BY C.year
ORDER BY C.year;

%---------------------------------------------------------------------------
% QUERY 4. Find the total number of CDs sold by a group with a recording label.
% Order the results in descending order by the total number of CDs sold.
% (groupCode, groupName, labelID, labelName, totalNumberSold)
%cd.numberSold, cd.labelID=recordingLabel.labelID
%---------------------------------------------------------------------------

query4 :=
SELECT M.groupCode, M.groupName, R.labelID, R.labelName, SUM(numberSold) AS totalNumberSold
FROM musicalGroup M, recordingLabel R, cd C
WHERE M.groupCode=C.groupCode AND C.labelID=R.labelID
GROUP BY M.groupCode, M.groupName, R.labelID, R.labelName
ORDER BY totalNumberSold desc;

%---------------------------------------------------------------------------
% QUERY 5. Which artists that have written a top 5 song are currently not members of any group?
% Order the results alphabetically by last name and first name.
% (artistID, firstName, lastName, yearBorn)
% topSongs.rating, artist.artistID <> member.artistID
```

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%---------------------------------------------------------------------------
query5 :=
SELECT distinct A.artistID, A.firstName, A.lastName, A.yearBorn
FROM artist A, topSongs T, writtenBy W
WHERE rating<6 AND T.songCode=W.songCode AND A.artistID=W.artistID AND A.artistID NOT IN (SELECT artistID FROM member WHERE toDate=0)
ORDER BY A.lastName, A.firstName;
```

QUERY
1. Which songs appeared on the CD rated number one in 2003?
Order the results in ascending order on track number.
(songCode, songTitle, trackNumber)

Relation Name	# Tuples
query1	10
query2	5
trackCount	21
query3	4
query4	18
query5	3

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

2. For each group in the database, find the number of CDs rated in the top 10.
Order the results in descending order of the number of top 10 CDs.
(groupCode, groupName, numberOfTop10CDs)

Relation Name	# Tuples
query1	10
query2	5
trackCount	21
query3	4
query4	18
query5	3

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

3. What is the maximum, the minimum, and average number of tracks on CDs published since the year 2000? Order the results in chronological order by year.
(year, maxNumber, minNumber, avgNumber)

Relation Name	# Tuples
query1	10
query2	5
trackCount	21
query3	4
query4	18
query5	3

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

4. Find the total number of CDs sold by a group with a recording label.
Order the results in descending order by the total number of CDs sold.
(groupCode, groupName, labelID, labelName, totalNumberSold)

Relation Name	# Tuples
query1	10
query2	5
trackCount	21
query3	4
query4	18
query5	3

groupCode/char	groupName/char	labelID/char	labelName/char	totalNumberSold/numeric
'G5'	'Keith Urban'	'L1'	'A&M Records'	2,140,000
'G4'	'Great Snakes'	'L3'	'Disney Records'	1,200,000
'G6'	'Beyond'	'L6'	'Disney Records'	800,000
'G3'	'Thundering Typhoons'	'L1'	'A&M Records'	800,000
'G2'	'Sweet Symphony'	'L4'	'Country Club'	800,000
'G6'	'Beyond'	'L2'	'Reprise Records'	790,000
'G3'	'Thundering Typhoons'	'L3'	'Disney Records'	750,000
'G4'	'Great Snakes'	'L1'	'A&M Records'	600,000
'G1'	'Deutsch Moss'	'L1'	'A&M Records'	500,000
'G2'	'Sweet Symphony'	'L5'	'Gray Dot Records'	450,000
'G4'	'Great Snakes'	'L2'	'Reprise Records'	100,000
'G2'	'Sweet Symphony'	'L6'	'Disney Records'	100,000
'G5'	'Keith Urban'	'L6'	'Disney Records'	99,000
'G5'	'Keith Urban'	'L5'	'Gray Dot Records'	89,000
'G6'	'Beyond'	'L5'	'Gray Dot Records'	75,000
'G1'	'Deutsch Moss'	'L4'	'Country Club'	40,000
'G6'	'Beyond'	'L8'	'Universal Records'	34,000
'G6'	'Beyond'	'L4'	'Country Club'	25,000

5. Which artists that have written a top 5 song are currently not members of any group?
Order the results alphabetically by last name and first name.
(artistID, firstName, lastName, yearBorn)

Relation Name	# Tuples
query1	10
query2	5
trackCount	21
query3	4
query4	18
query5	3

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