

# COMP 353: Homework 1

2022-10-12

## Collaborators

- Anshul Narang:
  - Worked on all 6 queries
  - Organized a meeting to work on unsolved queries/review solved queries
- Nick Shannon:
  - Worked on queries 3 and 6; reviewed remaining 4
  - Gathered outputs and created report

## Queries

1. Query 1:

```
/* Question 1 */
select co.songcode,s.songTitle, tracknumber from composedof co ,song s
where s.songcode = co.songcode and cdcode = (
    select cdcode from topcds where year = 2003 and rating = 1
)
order by tracknumber
```

| songcode | songtitle               | tracknumber |
|----------|-------------------------|-------------|
| 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 *****            | 9           |
| S12      | Goldilocks              | 10          |

(10 rows)

Figure 1: q1-out

2. Query 2:

```
/* Question 2 */
```

```

select mg.groupcode,groupname,count(*) as numberOfTop10CDs
from musicalgroup mg, cd c, topcds tc
where mg.groupcode = c.groupcode and c.cdcode = tc.cdcode and tc.rating <= 10
group by mg.groupcode, mg.groupname
order by numberOfTop10CDs desc

```

| groupcode | groupname           | numberoftop10cds |
|-----------|---------------------|------------------|
| G4        | Great Snakes        | 4                |
| G5        | Keith Urban         | 2                |
| G3        | Thundering Typhoons | 2                |
| G2        | Sweet Symphony      | 2                |
| G1        | Deutsch Moss        | 1                |

(5 rows)

Figure 2: q2-out

3. Query 3:

```

/* Question 3 */
select c.year, max(subquery.numberoftracks) as maxNumber,
min(subquery.numberoftracks) as minNumber,
avg(subquery.numberoftracks) as avgNumber
from cd c,
    (select cdcode, count(*) as numberoftracks
     from composedof
     group by cdcode) subquery
where year >= 2000 and c.cdcode = subquery.cdcode
group by c.year
order by c.year

```

| year | maxnumber | minnumber | avgnumber          |
|------|-----------|-----------|--------------------|
| 2000 | 7         | 5         | 6.0000000000000000 |
| 2001 | 8         | 1         | 5.0000000000000000 |
| 2002 | 9         | 9         | 9.0000000000000000 |
| 2003 | 10        | 2         | 3.6250000000000000 |

(4 rows)

Figure 3: q3-out

4. Query 4:

```

/* Question 4 */
select mg.groupcode, mg.groupname, cd.labelid,
rl.labelname, sum(cd.numbersold) as totalNumberSold
from musicalgroup mg, cd, recordinglabel rl
where mg.groupcode = cd.groupcode and cd.labelid = rl.labelid
group by mg.groupcode,mg.groupname, cd.labelid,rl.labelname
order by totalNumberSold DESC

```

| groupcode | groupname           | labelid | labelname         | totalnumbersold |
|-----------|---------------------|---------|-------------------|-----------------|
| G5        | Keith Urban         | L1      | A&M Records       | 2140000         |
| G4        | Great Snakes        | L3      | Disney Records    | 1200000         |
| G6        | Beyond              | L6      | Disney Records    | 800000          |
| G3        | Thundering Typhoons | L1      | A&M Records       | 800000          |
| G2        | Sweet Symphony      | L4      | Country Club      | 800000          |
| G6        | Beyond              | L2      | Reprise Records   | 790000          |
| G3        | Thundering Typhoons | L3      | Disney Records    | 750000          |
| G4        | Great Snakes        | L1      | A&M Records       | 600000          |
| G1        | Deutsch Moss        | L1      | A&M Records       | 500000          |
| G2        | Sweet Symphony      | L5      | Gray Dot Records  | 450000          |
| G2        | Sweet Symphony      | L6      | Disney Records    | 100000          |
| G4        | Great Snakes        | L2      | Reprise Records   | 100000          |
| G5        | Keith Urban         | L6      | Disney Records    | 99000           |
| G5        | Keith Urban         | L5      | Gray Dot Records  | 89000           |
| G6        | Beyond              | L5      | Gray Dot Records  | 75000           |
| G1        | Deutsch Moss        | L4      | Country Club      | 40000           |
| G6        | Beyond              | L8      | Universal Records | 34000           |
| G6        | Beyond              | L4      | Country Club      | 25000           |

(18 rows)

Figure 4: q4-out

5. Query 5:

```

/* Question 5 */
select distinct wr.artistid, art.firstname,art.lastname,art.yearborn
from artist art,writtenby wr, member mb, topsongs ts
where art.artistid = wr.artistid
and ts.songcode = wr.songcode
and ts.rating <=5 and not exists (select *
    from member
    where wr.artistid = member.artistid and member.todate = 0
)

```

| artistid | firstname | lastname | yearborn |
|----------|-----------|----------|----------|
| A13      | Jim       | Kate     | 1970     |
| A2       | Heidi     | Helmut   | 1945     |
| A8       | Lisa      | Raymond  | 1973     |

(3 rows)

Figure 5: q5-out

6. Query 6:

```

/* Question 6 */
select m.groupCode, m.groupName
from musicalgroup m, cd c, recordinglabel r
where m.groupcode = c.groupcode and c.labelid = r.labelid
and r.labelName = 'Country Club'
group by m.groupcode, m.groupName
intersect
select m.groupCode, m.groupName
from musicalgroup m, cd c, recordinglabel r
where m.groupcode = c.groupcode and c.labelid = r.labelid
and r.labelName = 'Gray Dot Records'
group by m.groupcode, m.groupName
intersect
select m.groupCode, m.groupName
from musicalgroup m, cd c, recordinglabel r
where m.groupcode = c.groupcode and c.labelid = r.labelid
and r.labelName = 'Disney Records'
group by m.groupcode, m.groupName

```

| groupcode | groupname      |
|-----------|----------------|
| G2        | Sweet Symphony |
| G6        | Beyond         |

(2 rows)

Figure 6: q6-out