

**CS4420/5420 Database Project**  
**Spring 2022 – Required Queries, Undergrad and Grad**

**Undergraduate Required Queries:**

Wherever a year or date is specified below, be sure to rely on **either** the track year or the actual position dates from the weekly data **as asked for in the problem. You will obtain different, incorrect results if you use a different method than that specified.** Be sure to print results as PLAIN TEXT FILES with 1 row per printed line, no wrap around– difficult to read output will be given a 0. (Hint: use the TEE command on the command line as illustrated in the example code.)

- 1) Show the entire 100 entries in the chart for position date September 7, 1968. The resulting table should have columns: Position, Title, Artist, DateEntered, ordered by position. (100 rows)
- 2) Show all distinct tracks whose position data is in 1970 (not the track year, but by **position dates**), which, at any time, occupied the #10 chart position (not necessarily the track's highest position reached). Show the song title and artist, ordered by title (43 rows).
- 3) What composers had their song reach number 1 for track year (not position year) 1972? Order by composer name, showing composer name, song title, highest position (should all be 1). 31 rows.
- 4) What artists hit #1 in 1969, based only on the track year column, rather than the individual position dates? Show artist, title, date peaked, highest position (should be '1'), order by DATE PEAKED. 16 rows.
- 5) What artists also wrote the track and had their peak position in the top 20 for track year = 1973? Show track title, artist name, highest position, ordered by artist name. Should yield 40 rows.
- 6) Either by fancy SQL code or examination of the results of less fancy code, ascertain what 2 songs were on the chart the longest in 1972, and show the answer and the results that provided the answer (you can hand mark the answer, need not have SQL print it. **NOTE: use the position dates within 1972, not the track year for this one!**
- 7) Which DISTINCT songs made the chart top 10 in July of 1969? (Note: we are looking for the position(s) <= 10 during that July time period; this is NOT the same as Highest Position<=10... the highest may have happened outside of July!) It should be 14 rows of unique songs. Show title and artist, ordered by artist.
- 8) Using the track's YEAR field (not position dates!) to determine the year, what song titles were performed by more than one artist for songs appearing on the chart any time in 1969? Show song title and artists, highest position, and date peaked for each, ordered by song title (so the same titles are next to each other) and track 'highest' position. (27 rows) *Hint: you will need to reference the tracks table twice, using aliases, in the same query!*

9) Show the top 40 songs for the week of 1964-04-04, showing in position order (1-40) the titles and artists. Do you notice anything unusual in the result? (40 rows)

10) What songs having a TRACK YEAR = 1968 got their highest position in the Top 10, but never got into the Top 5? Show title, artist, and date peaked, ordered by date peaked, and highest position (39 rows)

**Graduate Required Queries (4 more, in addition to Undergraduate Queries above):**

Graduate students will submit all of the 10 undergraduate queries above, numbered 1-10. **In addition**, they will submit the following queries. **Note that only 1 page of result printout plain text files should be submitted for each of these queries. You may edit the generated file in Notepad to show the first and last half-pages of data on a single screen-sized sheet. Be sure to use a mono-spaced (for example, Courier) font so all the columns align.**

Grad\_1) Redo #4 above, using the actual position data, and ignoring the track's year column. What artists hit #1 in 1969? Show artist, title, date peaked, order by DATE PEAKED. How many rows result, and why is it different from #4 above?

Grad\_2) Show all the songs written by more than one person (same track, more than one composer) that charted between 1964-1969, inclusive. Show the song title and composers, ordered by title, person name, and the highest position the track reached.

Grad\_3) From the given chart data, which artist had the longest time between their first appearance on the chart and their last appearance in the given data? You may find this from an ordered listing; your query does not have to be a single row result.

Grad\_4) Show the tracks from 1970-1972 inclusive (**using the chart position dates**) which had the most weekly appearances at the number 1 slot. In other words, which songs spent the most weeks at number 1 within that time period?