CS4.301: Data and Applications (Monsoon 2022)

Homework – 3
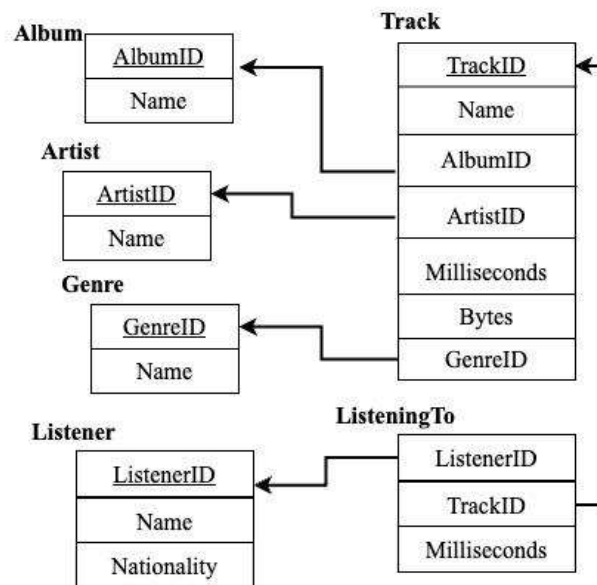
Submission Due: Nov 3, 2022
Instructor: Prof. Ponnurangam Kumaraguru (PK)
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For this homework, you must write SQL statements for the given set of queries. The goal of this is to make you familiar with SQL queries and the functionality of a database.

1. Database

The following database holds information about the music that an individual consumes including the information of the track, genre, artist etc. The schema for this database is provided below. There are six tables- Listener, ListeningTo, Track, Artist, Album and Genre. You can see the columns that link tables together via the arrows.

    a. A database file has been provided to you which follows the above schema. The database has already been populated with the required tuples. Please use the provided database to run your queries.
    b. The primary key of each table is underlined. Foreign key relationships are shown with arrows.

2. Queries

1. Which track has the longest length?
2. How many audio tracks were listened to by the people of "Indian" nationality.
3. Which album takes up the maximum space?
4. Which nationality listens to music the least?
5. Which genre is listened to by the most people among "Americans"?
6. Which artist did not make any albums at all?
7. Which artists did not record any tracks of the "Pop" Genre type?

Bonus: Complete each above query in just **one line** of SQL.

3. Submission Instructions

1. Your submission must include a single PDF named <teamnumber>.pdf (without the < and >).
2. The file must contain the **SQL statements** w.r.t. to each query followed by the **snapshot** of the output.