Expand the database 'db212BITSStream' which would contain four tables, namely: **Albums**, **Artists**, **Users,** and **Songs**. The **Albums**, **Artists,** and **Users** table have the same definition as the previous lab exercise.

1. All the relevant records can be imported into the first three tables by using the `import_data.sql` file. Import the data into the tables to proceed to further questions.

2. Link the ArtistName in Artists and Albums tables by adding an appropriate constraint such that deleting or updating a row in the **Artists** table also deletes or updates the matching rows in the **Albums** table.

    Note 1: You might get ERROR 1822 in the process, which is based on the fact that *foreign key* in the parent table is not unique. Resolve that error by altering the *parent* table as per requirement.

3. Create a table **Songs**. The table has the following attributes :
    a. Likes (INT)
    b. SongID (Primary Key)
    c. SongName NOT NULL
    d. AlbumName
    e. ArtistName
    f. Duration (Numeric(3,2)

    Add the two Foreign Key constraints with the
    a. `ON DELETE CASCADE`
    b. `ON UPDATE CASCADE`
    reference options. (Keep Note 1 in mind before table creation)

4. Insert the following entries into Songs :

    - 243234 , 1 , Daylight, Overexposed, Maroon 5 ,3.45

    - 323249 , 2 , Payphone, Overexposed, Maroon 5 ,3.51

    - 98271 , 10, Gustaakh, Vaaqif , TLT, 3.04

    - 378923 ,15 ,The Catalyst, A Thousand Suns ,Linkin Park , 5.39

5. Demonstrate the 'On Update cascade' constraint by updating the record with 'TLT' entry in Artists table affecting the Songs and Albums table.

6. Display the songs which have their second last letter as an "e" and have their length exceeding 4 minutes.

7. List out all records from the songs table arranged on the basis of duration in increasing order. If two songs have the same duration, arrange them on the basis of number of likes in decreasing order.

8. Select all the albums released in 2016. Show the result in the form of a new column named **Music** which has its entries in the form '**AlbumName ArtistName'** .

9. Display the most liked song that lasts for less than 4 minutes.

10. Reveal all the hotmail users who have Premium (P) membership.

11. Change the foreign key reference options in the **Songs** table to

    1. With reference to the **Artists** table :
       ```
       a) ON DELETE RESTRICT
       b) ON UPDATE CASCADE
       ```

    2. With reference to the **Albums** table :

       ```
       c) ON DELETE SET NULL
       d) ON UPDATE CASCADE
       ```

    What changes/ errors would this result in?

12. Delete the entry 'The Local Train' from the **Artists** table. List the output and the reason for the same.