Contents

Features of the Dataset

- **User Account interaction**

- **Choice of Multiple Playlist creation**

- **Interconnectivity of User and Artist through multiple ways**

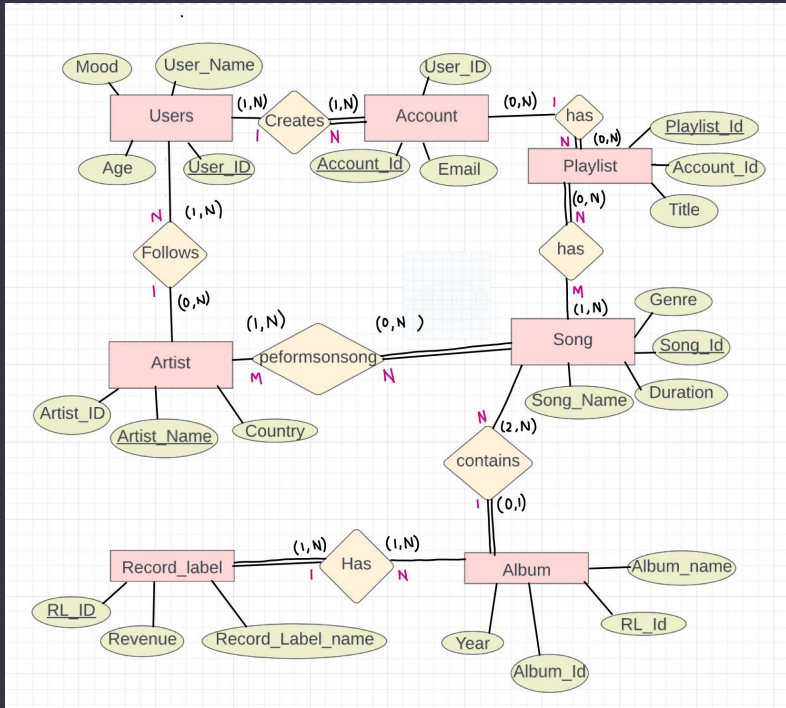- **Record label abstracted from the user**

Objectives

- Emulate streaming services and improve upon the ease of access of user / artist / record company data with much ease

- Individual artists and albums are organised separately with their respective attributes

- Artists are separately attributed to their songs

- PeformsSongsOn, Follows relation enables the separation of Users from Artists and can conveniently interconnect the attributes between the two entities.

ER Diagram

- The Primary Keys are underlined
- Connection between entity sets is understood by double or single lines
- The relationship type is expressed with min max and x:y format

PeformsOnSong and Follows are later considered as table although it is represented as a relation in the ER Diagram.

Assumptions Made

- Every Record Label has albums but not all Albums are associated with record labels

- An Album contains at least 2 songs and we have assumed that songs can exist without albums.

- Accounts exist when users create them and an email ID is used to identify the user, a single user can create multiple accounts

- All Playlists must be associated with a user account and must contain at least one song, songs can otherwise exist without a playlist

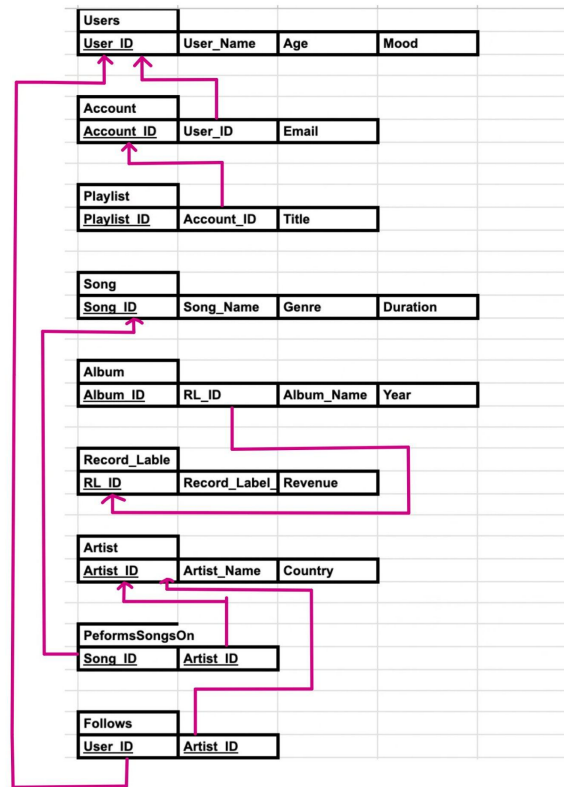# Tables Involved

#1 Users

#2 Account

#3 Playlist

#4 Song

#5 Album

#6 Record Label

#7 Artist

#8 PeformsOnSong

#9 Follows

01 Show the total number of followers for each artist:

```sql
SELECT Artist.Artist_Id, Artist.Artist_Name, COUNT(*) AS
Total_Followers FROM Artist INNER JOIN Follows ON
Artist.Artist_Id = Follows.Artist_ID GROUP BY Artist.Artist_Id,
Artist.Artist_Name;
```

ARTIST_ID	ARTIST_NAME	TOTAL_FOLLOWERS
3	Porcupine Tree	10
4	Vulfpeck	7
5	Cory Wong	6
6	Peter Cat Recording Co.	5
2	Pink Floyd	9
7	The F16s	4
9	The Fearless Flyers	4
1	Radiohead	5
8	Red Hot Chili Peppers	8
10	Hypnautica	4

Show the total duration of songs for each genre:

```
SELECT Genre, SUM(Duration) AS
Total_Duration
FROM Song GROUP BY Genre;
```

ARTIST_ID	ARTIST_NAME	TOTAL_FOLLOWERS
3	Porcupine Tree	10
4	Vulfpeck	7
5	Cory Wong	6
6	Peter Cat Recording Co.	5
2	Pink Floyd	9
7	The F16s	4
9	The Fearless Flyers	4
1	Radiohead	5
8	Red Hot Chili Peppers	8
10	Hypnautica	4

03

Display playlist ID,Email and Title for users who are above the age 25 and follow artist with artist ID 7 ie The F16s.

```
Select user_name,email,playlist_id,title
from playlist,account,users,follows
where playlist.account_id=account.account_id and account.user_id=
users.user_id and users.age<25 and follows.artist_id=7
```

USER_NAME	EMAIL	PLAYLIST_ID	TITLE
Joe Mama	mamaj@hotmail.com	108	LollaPalooza 2018 Chicago
Bruno Cohen	Brunoooo@gmail.com	111	Ramp Practice
Pako Bell	tortillasarecool@yahoo.com	114	Morning Routine
Suryakanth Swa	Swa@hotmail.com	109	Modern Disco

04

1. Show the total duration of songs for each genre:

```
SELECT Genre, SUM(Duration) AS Total_Duration
FROM Song GROUP BY Genre;
```

GENRE	TOTAL_DURATION
R&B	7
Funk Rock	28
Art rock	65
Funk Jazz	10
Psy rock	38
Disco	11

References

https://www.w3schools.com/sql/
https://en.wikipedia.org/wiki/Radiohead