SQL Queries Specification Document

1. Top 7 Longest Songs

- Purpose: Find the seven longest songs in the "Song" table.
- Details: Retrieves song titles and durations in minutes, ordered by duration in descending order, with a limit of seven results.

2. User Details with Playlist Titles

- Purpose: Get user details along with their associated playlist titles.
- Details: Uses a LEFT JOIN to fetch user information and their playlist titles. Includes user ID, username, first and last names, and playlist titles.

3. Albums from 1952 Onward

- Purpose: Fetch albums released in or after 1952, ordered by release date.
- Details: Uses an INNER JOIN to link albums with artists, then filters albums by release year, displaying album titles, artist names, and release dates.

4. Distinct Awards with Artist, Song, and Album

- Purpose: List distinct awards along with artist names, song titles, and album titles.
- Details: Joins the "Award", "Artist", "Album", and "Song" tables, showing awards, artists, song titles, and album titles, ordered by award ID.

5. Subscription Types with Count

- Purpose: Find unique subscription types and their count.
- Details: Retrieves unique subscription types, prices, and their count, grouped by subscription type and price.

6. Yearly Elite Subscription Users

- Purpose: Get usernames of users with a "Yearly Elite" subscription.
- Details: Uses a JOIN to fetch usernames of users with a specific subscription type, filtering by "Yearly Elite".

7. Playlists Containing "Rock"

- Purpose: Find playlists with titles containing "Rock".
- Details: Uses a JOIN to retrieve distinct user IDs, usernames, playlist IDs, and playlist titles, where the playlist title contains the word "Rock".

8. Songs from 1970 to 1980 with Genre

- Purpose: Get songs released between 1970 and 1980, including their genre.
- Details: Uses a WHERE clause to filter by release year, selecting song titles, release dates, and genre names.

9. Artists and Award Years

- Purpose: List artist names, their nationalities, and the years they received awards.
- Details: Joins the "Artist" and "Award" tables, ordered by award year in descending order.

10. Award Count by Artist Nationality

- Purpose: Count awards by artist nationality.
- Details: Groups by nationality to count awards, then orders by award count in descending order.

11. Top 10 Artists by Total Song Plays

- Purpose: Find the top 10 artists by total song plays.
- Details: Joins the "Artist" and "Song" tables, counting total plays for each artist, then limiting results to the top 10.

12. Top 5 Artists by Album Count

- Purpose: Find the top 5 artists with the most albums.
- Details: Uses an INNER JOIN and GROUP BY to count distinct albums, ordered by album count in descending order.

13. Total Revenue from Subscriptions

- Purpose: Calculate total revenue from all subscriptions.
- Details: Uses SUM to compute the total revenue based on the "Subscription_" table.

14. Minimum and Maximum Subscription Prices

- Purpose: Find the minimum and maximum prices for subscriptions.
- Details: Uses MIN and MAX to get the minimum and maximum subscription prices.

15. Average Song Duration

- Purpose: Calculate the average duration of songs.
- Details: Uses AVG to calculate the average duration of all songs in the "Song" table.

16. Recently Played Songs by Users

- Purpose: Fetch the 10 most recently played songs with user information.
- Details: Joins "RecentlyPlayed" with "User_" to get user full names, song titles, and artist names, ordered by the most recently played songs.