

## REPORT 3

**Introduction to the database:** NUMusic is an application used for music management. We can use the NUMusic database to manage the users who are using the app, navigate songs, subscribe to an available subscription plan to get access to perks like downloading songs, managing playlists, managing the payment details to get the subscription. Students, staff members and other employees associated can use this application.

**Objective:** To show a list of all artists and the number of albums and songs they have in the database along with album names and song names.

**Query used:**

```
SELECT A.artist_name, COUNT(DISTINCT AA.album_id) AS num_albums,
COUNT(DISTINCT S.song_id) AS num_songs,
    LISTAGG(DISTINCT NVL(AL.album_name,'No Album'), ', ') WITHIN
GROUP (ORDER BY AL.album_name) AS album_names,
    LISTAGG(DISTINCT NVL(S.song_name,'No Songs'), ', ') WITHIN
GROUP (ORDER BY S.song_name) AS song_names
FROM Artist A
LEFT JOIN Album_Artist AA ON A.artist_id = AA.artist_id
LEFT JOIN Album AL ON AA.album_id = AL.album_id
LEFT JOIN Songs_Artist SA ON A.artist_id = SA.artist_id
LEFT JOIN Songs S ON SA.song_id = S.song_id
GROUP BY A.artist_name;
```

**Result screen shots:**

```

69 --This report can show a list of all artists and the number of albums and songs they have in the database along v
70
71
72 SELECT A.artist_name, COUNT(DISTINCT AA.album_id) AS num_albums, COUNT(DISTINCT S.song_id) AS num_songs,
73 LISTAGG(DISTINCT NVL(AL.album_name, 'No Album'), ', ') WITHIN GROUP (ORDER BY AL.album_name) AS album_names,
74 LISTAGG(DISTINCT NVL(S.song_name, 'No Songs'), ', ') WITHIN GROUP (ORDER BY S.song_name) AS song_names
75 FROM Artist A
76 LEFT JOIN Album_Artist AA ON A.artist_id = AA.artist_id
77 LEFT JOIN Album AL ON AA.album_id = AL.album_id
78 LEFT JOIN Songs_Artist SA ON A.artist_id = SA.artist_id
79 LEFT JOIN Songs S ON SA.song_id = S.song_id
80 GROUP BY A.artist_name;
81
82

```

Script Output x Query Result x

SQL All Rows Fetched: 6 in 0.072 seconds

ARTIST_NAME	NUM_ALBUMS	NUM_SONGS	ALBUM_NAMES	SONG_NAMES
1 Arctic Monkeys	1	0	505	No Songs
2 Keshi	0	0	No Album	No Songs
3 Mariah Carey	1	0	Music Box	No Songs
4 Michael Jackson	1	2	Thriller	Black or White, Thriller
5 Olivia Rodrigo	1	3	Sour	Drivers Liscence, Good For You, Liar
6 Taylor Swift	1	0	Red	No Songs