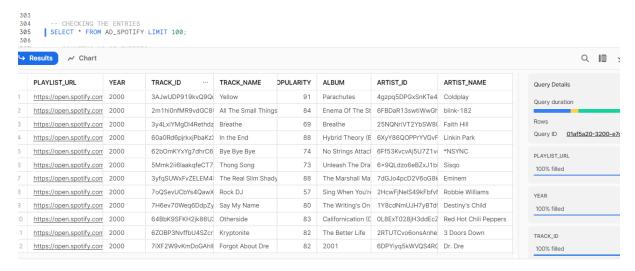
```
-- ACTIVATING THE DATABASE
USE DATABASE AD_ASSIGNMENT;
-- CREATING A TABLE
CREATE OR REPLACE TABLE AD_SPOTIFY
(
  PLAYLIST_URL VARCHAR (100),
  YEAR VARCHAR (5),
  TRACK_ID VARCHAR (50),
  TRACK_NAME VARCHAR (250),
  TRACK_POPULARITY INT,
  ALBUM VARCHAR (200),
  ARTIST_ID VARCHAR (100),
  ARTIST_NAME VARCHAR (100),
  ARTIST_GENRES VARCHAR (500),
  ARTIST_POPULARITY INT,
  DANCEABILITY DECIMAL (4,3),
  ENERGY DECIMAL (4,3),
  KEY INT,
  LOUDNESS DECIMAL (5,3),
  MODE INT,
  SPEECHINESS DECIMAL(5,4),
  ACOUSTICNESS DECIMAL(10,8),
  INSTRUMENTALNESS VARCHAR(10),
  LIVENESS DECIMAL (5,4),
  VALENCE DECIMAL (5,4),
  TEMPO DECIMAL(6,3),
  DURATION INT,
 TIME_SIGNATURE INT
);
```

#### -- CHECKING THE ENTRIES

#### SELECT \* FROM AD\_SPOTIFY LIMIT 100;



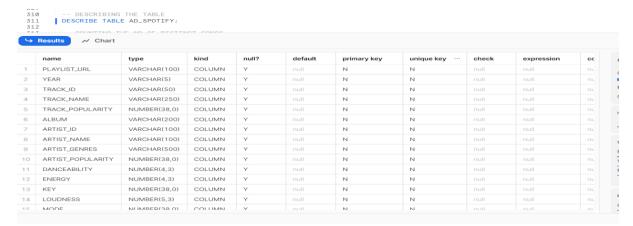
#### -- COUNTING NO OF ENTRIES

## SELECT COUNT(\*) FROM AD\_SPOTIFY;



## -- DESCRIBING THE TABLE

## DESCRIBE TABLE AD\_SPOTIFY;



-- COUNTING THE NO OF DISTINCT SONGS

## SELECT COUNT(DISTINCT TRACK\_ID) AS NO\_OF\_SONGS FROM AD\_SPOTIFY;



-- COUNT NO OF DISTINCT SONGS AND SONG NAME FOR DUBLICATE TRACK NAME

## SELECT COUNT(DISTINCT TRACK\_ID) AS NO\_OF\_DISTINCT\_SONGS,COUNT(DISTINCT TRACK\_NAME) AS NO\_OF\_DISTINCT\_SONGS\_NAME FROM AD\_SPOTIFY;



-- COUNTING NO OF DISTINCT ARTIST ID AND ARTIST NAME FOR DUPLICATE NAMES.

# SELECT COUNT(DISTINCT ARTIST\_ID) AS NO\_OF\_ARTIST\_ID,COUNT(DISTINCT ARTIST\_NAME) AS NO\_OF\_DISTINCT\_ARTIST FROM AD\_SPOTIFY;



-- 2. Number of songs on Spotify for each artist

## SELECT ARTIST\_ID,ARTIST\_NAME, COUNT(TRACK\_ID) AS NO\_OF\_SONGS FROM AD\_SPOTIFY

## GROUP BY 1,2

#### ORDER BY 3 DESC;

322 -- 2.Number of songs on Spotify for each artist
323 SELECT ARTIST\_ID,ARTIST\_NAME, COUNT(TRACK\_ID) AS NO\_OF\_SONGS FROM AD\_SPOTIFY
324 GROUP BY 1,2
325 ORDER BY 3 DESC;
326

	ARTIST_ID	ARTIST_NAME	NO_OF_SONGS
1	3TVXtAsR1Inumwj47	Drake	32
2	06HL4z0CvFAxyc27	Taylor Swift	31
3	5pKCCKE2ajJHZ9KA	Rihanna	27
4	66CXWjxzNUsdJxJ2.	Ariana Grande	22
5	6vWDO969PvNqNYH	Beyoncé	22
6	1uNFoZAHBGtllmzzn	Justin Bieber	21
7	7CajNmpbOovFoOoa	Calvin Harris	21
8	1KCSPY1gllKqW2Tot	P!nk	20
9	6eUKZXaKkcviH0Ku9	Ed Sheeran	19
10	4gzpq5DPGxSnKTe4	Coldplay	18
11	5K4W6rqBFWDnAN6	Kanye West	18
12	7dGJo4pcD2V6oG8k	Eminem	18
13	6jJ0s89eD6GaHleKK	Katy Perry	17
14	1yxSLGMDHIW21z4\	Black Eyed Peas	16
15	7bXgB6jMjp9ATFy66	Chris Brown	16

## -- 3. Top 10 songs based on popularity

SELECT TRACK\_ID,TRACK\_NAME,TRACK\_POPULARITY AS POPULARITY --

FROM AD\_SPOTIFY

**GROUP BY 1,2,3** 

**ORDER BY 3 DESC** 

LIMIT 10;

```
327 -- 3. Top 10 songs based on popularity
328 SELECT TRACK_ID,TRACK_NAME,TRACK_POPULARITY AS POPULARITY --
329 FROM AD_SPOTIFY
330 GROUP BY 1,2,3
331 ORDER BY 3 DESC
332 LIMIT 10;
```

## ✓ Chart

	TRACK_ID	TRACK_NAME	POPULARITY
1	1BxfuPKGuaTgP7aM0	Cruel Summer	100
2	0V3wPSX9ygBnCm8	Anti-Hero	93
3	4uUG5RXrOk84mYEfl	I'm Good (Blue)	93
4	3hUxzQpSfdDqwM3Z	august	93
5	7MXVkk9YMctZqd1S	Starboy	92
6	4h9wh7iOZ0GGn8QV	I Ain't Worried	92
7	0VjljW4GlUZAMYd2v2	Blinding Lights	92
8	0WtM2NBVQNNJLh6	Calm Down (with Se	92
9	3JvKfv6T31zO0ini8iN	Another Love	91
10	3AJwUDP919kvQ9Qc	Yellow	91

SELECT \* FROM AD\_SPOTIFY

ORDER BY TEMPO DESC

LIMIT 2;

-- 4 Total number of songs on spotify based on year

SELECT YEAR, COUNT (DISTINCT TRACK\_ID) AS NO\_OF\_TRACKS

FROM AD\_SPOTIFY

GROUP BY 1

ORDER BY 1;

```
339
         -- 4 Total number of songs on spotify based on year
       SELECT YEAR, COUNT (DISTINCT TRACK_ID) AS NO_OF_TRACKS
340
341
         FROM AD_SPOTIFY
342
         GROUP BY 1
        ORDER BY 1;
343
→ Results

✓ Chart

    YEAR
                   NO_OF_TRACKS
1
    2000
                             100
2
    2001
                             100
3
    2002
                             100
4
    2003
                             100
5
    2004
                             100
6
    2005
                             100
7
    2006
                             100
8
    2007
                             100
    2008
                             100
9
    2009
10
                             100
11
    2010
                             100
12
    2011
                             100
    2012
                             100
13
```

-- 5.Top song for each year (2000-2022) based on popularity

SELECT DISTINCT YEAR, MAX\_BY(TRACK\_NAME, TRACK\_POPULARITY) AS POPULAR\_SONG\_OF\_THE\_YEAR, MAX(TRACK\_POPULARITY) AS POPULARITY

FROM AD\_SPOTIFY

**GROUP BY 1** 

ORDER BY 1;

```
345
346
         -- 5.Top song for each year (2000-2022) based on popularity
        SELECT DISTINCT YEAR, MAX_BY(TRACK_NAME,TRACK_POPULARITY) AS POPULAR_SONG_OF_THE_YEAR, MAX(TRACK_POPULARITY) AS POPULARITY
         FROM AD_SPOTIFY GROUP BY 1
 348
 349
         ORDER BY 1;
YEAR
                POPULAR_SONG_OF_THE_YEAR
                                                    POPULARITY
     2000
                Yellow
                                                            91
     2001
                                                            84
                Stan
    2002
                Without Me
                                                            89
    2003
                Seven Nation Army
                                                             86
    2004
                Mr. Brightside
                                                             87
    2005
                Mockingbird
                                                             90
    2006
                Hips Don't Lie (feat. Wyclef Jean)
                                                             86
9
    2008
                Viva La Vida
                                                             88
10 2009
                Heartless
                                                             88
11 2010
                Just the Way You Are
                                                             86
12 2011
                Sure Thing
                                                             89
                Locked out of Heaven
13 2012
                                                             90
14
    2013
                Sweater Weather
                                                             91
    2014
```

-- 6. Analysis based on Tempo : tempo > 121.08 -> 'Above Average Tempo' tempo = 121.08 -> 'Average Tempo' tempo < 121.08 -> 'Below Average Tempo'

SELECT TRACK\_ID,TRACK\_NAME,TEMPO,

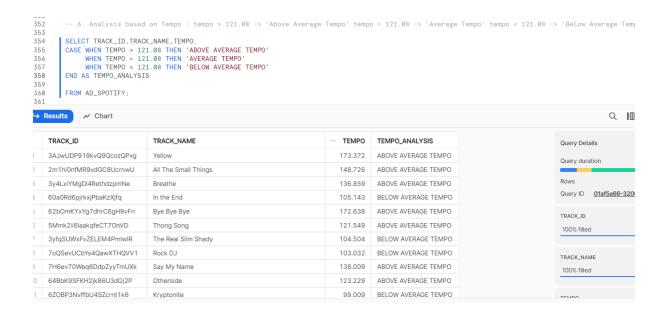
CASE WHEN TEMPO > 121.08 THEN 'ABOVE AVERAGE TEMPO'

WHEN TEMPO = 121.08 THEN 'AVERAGE TEMPO'

WHEN TEMPO < 121.08 THEN 'BELOW AVERAGE TEMPO'

END AS TEMPO\_ANALYSIS

FROM AD\_SPOTIFY;



-- COUNTING TRACK ID AMONGST TEMPO RANGE

SELECT COUNT(\*) AS NO\_OF\_SONGS,TEMPO\_ANALYSIS

FROM (SELECT TRACK\_ID,TRACK\_NAME,TEMPO,

CASE WHEN TEMPO > 121.08 THEN 'ABOVE AVERAGE TEMPO'

WHEN TEMPO = 121.08 THEN 'AVERAGE TEMPO'

WHEN TEMPO < 121.08 THEN 'BELOW AVERAGE TEMPO'

END AS TEMPO\_ANALYSIS

FROM AD\_SPOTIFY)

#### **GROUP BY 2;**

→ Results

```
- COUNTING TRACK_ID AMONGST TEMPO_RANGE
362
363
       SELECT COUNT(*) AS NO_OF_SONGS,TEMPO_ANALYSIS
364
        FROM (SELECT TRACK_ID, TRACK_NAME, TEMPO,
365
        CASE WHEN TEMPO > 121.08 THEN 'ABOVE AVERAGE TEMPO'
366
             WHEN TEMPO = 121.08 THEN 'AVERAGE TEMPO'
             WHEN TEMPO < 121.08 THEN 'BELOW AVERAGE TEMPO'
367
368
        END AS TEMPO_ANALYSIS
369
        FROM AD_SPOTIFY)
370
        GROUP BY 2;
371
```



✓ Chart

#### --7. Songs with Highest Tempo

#### SELECT TRACK\_ID ,TRACK\_NAME,TEMPO

FROM AD\_SPOTIFY

WHERE TEMPO IS NOT NULL

ORDER BY TEMPO DESC

#### LIMIT 1;

```
372
        --7. Songs with Highest Tempo
373
      SELECT TRACK_ID ,TRACK_NAME,TEMPO
374
        FROM AD_SPOTIFY
375
      WHERE TEMPO IS NOT NULL
376
      ORDER BY TEMPO DESC
377
      LIMIT 1;
378
379
        /* 8. Number of Songs for different Tempo Range : trac
        100.001 AND 120.00 Dance_Music -> tempo BETWEEN 120.00
→ Results

✓ Chart
```

	TRACK_ID	TRACK_NAME	TEMPO
1	3BxWKCl06eQ5Od8TY2JBeA	Buttons	210.857

/\* 8. Number of Songs for different Tempo Range : track\_name, energy Modern\_Music -> tempo BETWEEN 60.00 AND 100.00 Classical\_Music -> tempo BETWEEN 100.001 AND 120.00 Dance\_Music -> tempo BETWEEN 120.001 AND 150.01 HighTempo\_Music -> tempo > 150.01 \*/

SELECT track\_name,energy, CASE WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'MODERN\_MUSIC'

WHEN TEMPO BETWEEN 100.01 AND 120.00 THEN 'CLASSICAL\_MUSIC'
WHEN TEMPO BETWEEN 120.001 AND 150.00 THEN 'DANCE\_MUSIC'
WHEN TEMPO >150.01 THEN 'HIGH\_TEMPO\_MUSIC'
ELSE 'TEMPO\_NOT\_IN\_RANGE'
END AS TEMPO\_RANGE

FROM AD\_SPOTIFY

group by 1,2,3;

```
/* 8. Number of Songs for different Tempo Range : track_name, energy Modern_Music -> tempo BETWEEN 60.00 AND 100.001 AND 120.00 Dance_Music -> tempo BETWEEN 120.001 AND 150.01 HighTempo_Music -> tempo > 150.01 */
 379
 380
          SELECT track_name, energy, CASE WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'MODERN_MUSIC'
 381
                        WHEN TEMPO BETWEEN 100.01 AND 120.00 THEN 'CLASSICAL_MUSIC'
 382
                        WHEN TEMPO BETWEEN 120.001 AND 150.00 THEN 'DANCE_MUSIC'
 383
 384
                        WHEN TEMPO >150.01 THEN 'HIGH_TEMPO_MUSIC'
 385
                        ELSE 'TEMPO_NOT_IN_RANGE'
 386
                   END AS TEMPO_RANGE
 387
          FROM AD_SPOTIFY
 388
          group by 1,2,3;
 389
→ Results

✓ Chart

     TRACK_NAME
                                                         ENERGY
                                                                    TEMPO_RANGE
     Yellow
                                                            0.661
                                                                    HIGH_TEMPO_MUSIC
                                                                    DANCE_MUSIC
     All The Small Things
                                                           0.897
     In the End
                                                            0.864
                                                                    CLASSICAL MUSIC
                                                            0.926
                                                                    HIGH_TEMPO_MUSIC
     Bye Bye Bye
5
     Thong Song
                                                            0.888
                                                                    DANCE_MUSIC
6
     The Real Slim Shady
                                                            0.661
                                                                    CLASSICAL_MUSIC
     Rock DJ
                                                           0.762
                                                                    CLASSICAL_MUSIC
    Say My Name
                                                            0.678
                                                                    DANCE_MUSIC
9
     Kryptonite
                                                            0.865
                                                                    MODERN_MUSIC
                                                            0.740 DANCE MUSIC
10 Forgot About Dre
```

0.808 DANCE\_MUSIC

#### -- NO OF SONGS IN EACH TEMPO RANGE

SELECT TEMPO\_RANGE,COUNT(TRACK\_ID) AS NO\_OF\_SONGS

FROM (SELECT \*, CASE WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'MODERN\_MUSIC'

WHEN TEMPO BETWEEN 100.01 AND 120.00 THEN 'CLASSICAL\_MUSIC'

WHEN TEMPO BETWEEN 120.001 AND 150.00 THEN 'DANCE\_MUSIC'

WHEN TEMPO >150.01 THEN 'HIGH\_TEMPO\_MUSIC'

ELSE 'TEMPO\_NOT\_IN\_RANGE'

END AS TEMPO\_RANGE

FROM AD\_SPOTIFY)

11 Lady - Hear Me Tonight

**GROUP BY 1** 

ORDER BY 2 DESC;

```
-- NO OF SONGS IN EACH TEMPO RANGE
391
392
      SELECT TEMPO_RANGE,COUNT(TRACK_ID) AS NO_OF_SONGS
393
        FROM (SELECT *, CASE WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'MODERN_MUSIC'
394
                    WHEN TEMPO BETWEEN 100.01 AND 120.00 THEN 'CLASSICAL_MUSIC'
395
                    WHEN TEMPO BETWEEN 120.001 AND 150.00 THEN 'DANCE_MUSIC'
                    WHEN TEMPO >150.01 THEN 'HIGH_TEMPO_MUSIC'
396
397
                   ELSE 'TEMPO_NOT_IN_RANGE'
398
                END AS TEMPO_RANGE
        FROM AD_SPOTIFY)
399
400
        GROUP BY 1
       ORDER BY 2 DESC;
401
401
```

✓ Chart

	TEMPO_RANGE	NO_OF_SONGS
1	DANCE_MUSIC	820
2	MODERN_MUSIC	636
3	CLASSICAL_MUSIC	509
4	HIGH_TEMPO_MUSIC	325
5	TEMPO_NOT_IN_RANGE	10

/\*9. Energy Analysis: TOP 10 track\_name, danceability, track\_popularity energy > 0.64 -> 'Above Average Energy energy = 0.64 -> 'Average Energy' energy < 0.64 -> 'Below Average Energy' energy BETWEEN 0.1 AND 0.3 -> 'Calm Music'\*/

SELECT TRACK\_NAME, DANCEABILITY, TRACK\_POPULARITY, ENERGY,

CASE WHEN ENERGY > 0.64 THEN 'ABOVE AVERAGE ENERGY'

WHEN ENERGY = 0.64 THEN 'AVERAGE ENERGY'

WHEN ENERGY < 0.64 THEN 'BELOW AVERAGE ENERGY'

END AS TYPE\_OF\_ENERGY,

CASE WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'CALM MUSIC'

WHEN ENERGY BETWEEN 0.301 AND 0.6 THEN 'MODERATE MUSIC'

WHEN ENERGY > 0.6 THEN 'ENERGETIC MUSIC'

**ELSE 'NOT IN RANGE'** 

END AS TYPE\_OF\_MUSIC

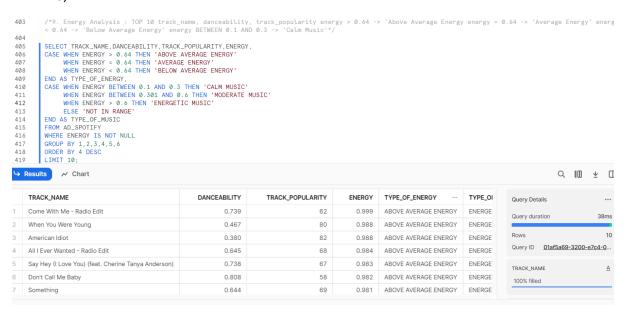
FROM AD\_SPOTIFY

WHERE ENERGY IS NOT NULL

GROUP BY 1,2,3,4,5,6

#### **ORDER BY 4 DESC**

#### LIMIT 10;



-- 10. Number of Songs for different energy ranges(above)

```
SELECT TYPE_OF_ENERGY,COUNT(TRACK_ID) AS NO_OF_SONGS

FROM (SELECT *,

CASE WHEN ENERGY > 0.64 THEN 'ABOVE AVERAGE ENERGY'

WHEN ENERGY = 0.64 THEN 'AVERAGE ENERGY'

WHEN ENERGY < 0.64 THEN 'BELOW AVERAGE ENERGY'

END AS TYPE_OF_ENERGY

FROM AD_SPOTIFY
)

GROUP BY 1

ORDER BY 2 DESC;
```

```
421
      -- 10. Number of Songs for different energy ranges(above)
422
      SELECT TYPE_OF_ENERGY,COUNT(TRACK_ID) AS NO_OF_SONGS
423
424
       FROM (SELECT *,
425
       CASE WHEN ENERGY > 0.64 THEN 'ABOVE AVERAGE ENERGY'
            WHEN ENERGY = 0.64 THEN 'AVERAGE ENERGY'
426
            WHEN ENERGY < 0.64 THEN 'BELOW AVERAGE ENERGY'
427
428
       END AS TYPE_OF_ENERGY
429
       FROM AD_SPOTIFY
430
431
       GROUP BY 1
432
       ORDER BY 2 DESC;
433
        -- 10. Number of Songs for different energy ranges(above)
434
```

#### ✓ Chart

	TYPE_OF_ENERGY	NO_OF_SONGS
1	ABOVE AVERAGE ENERGY	1,502
2	BELOW AVERAGE ENERGY	796
3	null	1
4	AVERAGE ENERGY	1

-- 10. Number of Songs for different energy ranges(above)

SELECT TYPE\_OF\_MUSIC,COUNT(TRACK\_ID)

FROM (SELECT \*,

CASE WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'CALM MUSIC'

WHEN ENERGY BETWEEN 0.301 AND 0.6 THEN 'MODERATE MUSIC'

WHEN ENERGY > 0.6 THEN 'ENERGETIC MUSIC'

ELSE 'NOT IN RANGE'

END AS TYPE\_OF\_MUSIC

FROM AD\_SPOTIFY)

**GROUP BY 1** 

ORDER BY 1;

```
434
        -- 10. Number of Songs for different energy ranges(above)
       SELECT TYPE_OF_MUSIC,COUNT(TRACK_ID)
435
       FROM (SELECT *,
436
        CASE WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'CALM MUSIC'
437
            WHEN ENERGY BETWEEN 0.301 AND 0.6 THEN 'MODERATE MUSIC'
438
            WHEN ENERGY > 0.6 THEN 'ENERGETIC MUSIC'
439
            ELSE 'NOT IN RANGE'
440
       END AS TYPE_OF_MUSIC
441
       FROM AD_SPOTIFY)
442
       GROUP BY 1
443
444
       ORDER BY 1;
445
```

#### ✓ Chart

	TYPE_OF_MUSIC	COUNT(TRACK_ID)
1	CALM MUSIC	40
2	ENERGETIC MUSIC	1,666
3	MODERATE MUSIC	590
4	NOT IN RANGE	4

/\*11. Danceability Analysis: Top 20 track\_name, danceability danceability BETWEEN 0.69 AND 0.79 - > 'Low Danceability' (danceability BETWEEN 0.49 AND 0.68) OR (danceability BETWEEN 0.79 AND 0.89) -> 'Moderate Danceability' (danceability BETWEEN 0.39 AND 0.49) OR (danceability BETWEEN 0.89 AND 0.99) -> 'High Danceability' danceability < 0.39 OR danceability > 0.99 -> 'Cant Dance on this one'\*/

SELECT TRACK\_NAME, DANCEABILITY,

CASE WHEN DANCEABILITY BETWEEN 0.69 AND 0.79 THEN 'LOW DANCEABILITY'

WHEN DANCEABILITY BETWEEN 0.49 AND 0.68 OR DANCEABILITY BETWEEN 0.79 AND 0.89 THEN 'MODERATE DANCEABILITY'

WHEN DANCEABILITY BETWEEN 0.39 AND 0.49 OR DANCEABILITY BETWEEN 0.89 AND 0.99 THEN 'HIGH DANCEABILITY'

WHEN DANCEABILITY < 0.39 OR DANCEABILITY > 0.99 THEN 'CANT DANCE ON THIS ONE'

ELSE 'DANCEABILITY OUT OF RANGE'

END AS DANCEABILITY TYPE

FROM AD SPOTIFY

WHERE DANCEABILITY IS NOT NULL

#### GROUP BY 1,2

#### **ORDER BY 2 DESC**

#### LIMIT 20;



-- 12. Number of Songs for different danceability ranges(above)

SELECT DANCEABILITY\_TYPE,COUNT(\*)

FROM (SELECT TRACK\_NAME, DANCEABILITY,

CASE WHEN DANCEABILITY BETWEEN 0.69 AND 0.79 THEN 'LOW DANCEABILITY'

WHEN DANCEABILITY BETWEEN 0.49 AND 0.68 OR DANCEABILITY BETWEEN 0.79 AND 0.89 THEN 'MODERATE DANCEABILITY'

WHEN DANCEABILITY BETWEEN 0.39 AND 0.49 OR DANCEABILITY BETWEEN 0.89 AND 0.99 THEN 'HIGH DANCEABILITY'

WHEN DANCEABILITY < 0.39 OR DANCEABILITY > 0.99 THEN 'CANT DANCE ON THIS ONE'

ELSE 'DANCEABILITY OUT OF RANGE'

END AS DANCEABILITY\_TYPE

FROM AD\_SPOTIFY)

**GROUP BY 1** 

ORDER BY 2 DESC;

```
462
                   12. Number of Songs for different danceability ranges(above)
             SELECT DANCEABILITY_TYPE,COUNT(*)
             SELECT TRACEABILITY_TYPE, COUNT(')
FROM (SELECT TRACE,NAME,DANCEABILITY,
CASE WHEN DANCEABILITY BETWEEN 0.69 AND 0.79 THEN 'LOW DANCEABILITY'
WHEN DANCEABILITY BETWEEN 0.49 AND 0.68 OR DANCEABILITY BETWEEN 0.79 AND 0.89 THEN 'MODERATE DANCEABILITY'
WHEN DANCEABILITY BETWEEN 0.39 AND 0.49 OR DANCEABILITY BETWEEN 0.89 AND 0.99 THEN 'HIGH DANCEABILITY'
WHEN DANCEABILITY < 0.39 OR DANCEABILITY > 0.99 THEN 'CANT DANCE ON THIS ONE'
ELSE 'DANCEABILITY OUT OF RANGE'
464
465
467
469
470
               END AS DANCEABILITY_TYPE
              FROM AD_SPOTIFY)
GROUP BY 1
ORDER BY 2 DESC;
472
474
→ Results

✓ Chart

       DANCEABILITY_TYPE
                                                             COUNT(*)
    MODERATE DANCEABILITY
                                                                    1,267
    LOW DANCEABILITY
                                                                      582
    HIGH DANCEABILITY
                                                                      289
4 CANT DANCE ON THIS ONE
                                                                       91
    DANCEABILITY OUT OF RANGE
                                                                        71
```

/\*13. Loudness Analysis : Top 20 track\_name, loudness, loudness BETWEEN -23.00 AND -15.00 - >'Low Loudness' loudness BETWEEN -14.99 AND -6.00 -> 'Below Average Loudness' loudness BETWEEN -5.99 AND -2.90 -> 'Above Average Loudness' loudness BETWEEN -2.89 AND -1.00 -> 'Peak Loudness'\*/

SELECT TRACK\_NAME,LOUDNESS,

CASE WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'

WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -5.99 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'

ELSE 'LOUDNESS CANNOT BE DETERMINE'

END TYPE\_OF\_LOUDNESS

FROM AD SPOTIFY

WHERE LOUDNESS IS NOT NULL

ORDER BY 2 DESC

LIMIT 20;

```
/*13. Loudness Analysis : Top 20 track_name, loudness, loudness BETWEEN -23.00 AND -15.00 ->'Low Loudness' loudness BETWEEN -14.99 AND -6.00 -> 'Below Average Loudness' loudness BETWEEN -5.99 AND -2.90 -> 'Above Average Loudness' loudness BETWEEN -2.89 AND -1.00 -> 'Peak Loudness'*/
477
478
479
480
            SELECT TRACK_NAME,LOUDNESS,
CASE WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'
WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'
WHEN LOUDNESS BETWEEN -9.9 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'
WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'
ELSE 'LOUDNESS CANNOT BE DETERMINE'
END TYPE_OF_LOUDNESS'
FROM AD_SPOTIFY
WHEDE LOUDNESS S NOT NILL
 482
483
484
485
            WHERE LOUDNESS IS NOT NULL
ORDER BY 2 DESC
LIMIT 20;
 486
→ Results  

✓ Chart
                                                                                                                                                                                                                                                 Q 🛍 👱 🗆
                                                  LOUDNESS TYPE_OF_LOUDNESS
       TRACK_NAME
                                                                                                                                                                                                                             Query Details
                                                            -0.276 LOUDNESS CANNOT BE DETERMINE
     In For The Kill
                                                                                                                                                                                                                             Query duration
                                                                                                                                                                                                                                                                   49ms
     Gold Dust - Radio Edit
                                                            -0.740 LOUDNESS CANNOT BE DETERMINE
                                                       -1.089 PEAK LOUDNESS
      Louder (feat. Sian Evans)
                                                                                                                                                                                                                                                                      20
                                                             -1.190 PEAK LOUDNESS
                          -1.203 PEAK LOUDNESS
     We Made You
                                                                                                                                                                                                                             TRACK NAME
     Forgot About Dre
                                                            -1.299 PEAK LOUDNESS
     Fighter
                                                             -1.357 PEAK LOUDNESS
```

-- 14. Number of Songs for different loudness ranges(above)

SELECT TYPE\_OF\_LOUDNESS,COUNT(\*)

FROM (SELECT \*,

CASE WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'

WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -5.99 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'

WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'

ELSE 'LOUDNESS CANNOT BE DETERMINE'

END TYPE\_OF\_LOUDNESS

FROM AD\_SPOTIFY)

GROUP BY 1;

```
-- 14. Number of Songs for different loudness ranges(above)
491
492
       SELECT TYPE_OF_LOUDNESS,COUNT(*)
493
       FROM (SELECT *,
494
       CASE WHEN LOUDNESS BETWEEN -23.00 AND -15.00 THEN 'LOW LOUDNESS'
495
            WHEN LOUDNESS BETWEEN -14.99 AND -6.00 THEN 'BELOW AVERAGE LOUDNESS'
496
             WHEN LOUDNESS BETWEEN -5.99 AND -2.90 THEN 'ABOVE AVERAGE LOUDNESS'
            WHEN LOUDNESS BETWEEN -2.89 AND -1.00 THEN 'PEAK LOUDNESS'
497
498
            ELSE 'LOUDNESS CANNOT BE DETERMINE'
499
        END TYPE_OF_LOUDNESS
500
       FROM AD_SPOTIFY)
       GROUP BY 1;
501
502
```

#### ✓ Chart

	TYPE_OF_LOUDNESS	COUNT(*)
1	BELOW AVERAGE LOUDNESS	907
2	ABOVE AVERAGE LOUDNESS	1,300
3	PEAK LOUDNESS	84
4	LOW LOUDNESS	6
5	LOUDNESS CANNOT BE DETERMINE	3

/\*15. Valence Analysis : Top 20 track\_name, valence, track\_popularity, valence > 0.535 -> Above Avg Valence valence = 0.535 -> Avg Valence valence < 0.535 -> Below Average'\*/

SELECT TRACK\_NAME, VALENCE, TRACK\_POPULARITY,

CASE WHEN VALENCE > 0.535 THEN 'ABOVE AVG VALENCE'

WHEN VALENCE = 0.535 THEN 'AVG VALENCE'

WHEN VALENCE < 0.535 THEN 'BELOW AVERAGE'

**ELSE 'RANGE NOT FOUND'** 

END AS VALENCE\_RANGE

FROM AD SPOTIFY

WHERE VALENCE IS NOT NULL

ORDER BY 1

LIMIT 20;

```
503
          /*15. Valence Analysis : Top 20 track_name, valence, track_popularity, valence > 0.535 -> Above Avg Valence valence = 0.535 -> Avg Valence valence <
          0.535 -> Below Average'*/
SELECT TRACK_NAME, VALENCE, TRACK_POPULARITY,
CASE WHEN VALENCE > 0.535 THEN 'ABOVE AVG VALENCE'
WHEN VALENCE = 0.535 THEN 'AVG VALENCE'
WHEN VALENCE < 0.535 THEN 'BELOW AVERAGE'
ELSE 'RANGE NOT FOUND'
504
505
506
507
508
509
510
511
512
513
          END AS VALENCE RANGE
          FROM AD_SPOTIFY
WHERE VALENCE IS NOT NULL
ORDER BY 1
LIMIT 20;
514
              16. Number of Songs for different valence ranges(above)
 → Results ~ Chart
                                                                                                                                                                                                    Q 10 ± 0
     TRACK_NAME
                                                                                               VALENCE
                                                                                                                  TRACK_POPULARITY VALENCE_RANGE
                                                                                                                                                                                    Query Details
    "Earned It (Fifty Shades Of Grey) - From The ""Fifty Shades Of Grey" Soundtrack"
                                                                                                 0.4260
                                                                                                                                            BELOW AVERAGE
                                                                                                                                                                                    Query duration
    "Happy - From ""Despicable Me 2""
                                                                                                 0.9620
                                                                                                                                     83
                                                                                                                                          ABOVE AVG VALENCE
                                                                                                                                                                                    Rows
                                                                                                                                                                                                                      20
    "Just Like Fire (From the Original Motion Picture ""Alice Through The Looking Glass
                                                                                                 0.5230
                                                                                                                                           BELOW AVERAGE
                                                                                                                                                                                    Query ID 01af5a70-3200-e7c4-0...
     "Let It Go - From ""Frozen""/Soundtrack Version'
                                                                                                 0.3710
                                                                                                                                           BELOW AVERAGE
    "Love Me Like You Do - From ""Fifty Shades Of Grey"
                                                                                                 0.2750
                                                                                                                                           BELOW AVERAGE
    "Moves Like Jagger - Studio Recording From ""The Voice"" Performance
                                                                                                 0.6200
                                                                                                                                     74 ABOVE AVG VALENCE
                                                                                                                                                                                     100% filled
    "Slow Down - 12"" Version"
                                                                                                 0.6260
                                                                                                                                     68 ABOVE AVG VALENCE
```

-- 16. Number of Songs for different valence ranges(above)

SELECT VALENCE\_RANGE,COUNT(\*)

FROM (SELECT TRACK\_NAME, VALENCE, TRACK\_POPULARITY,

CASE WHEN VALENCE > 0.535 THEN 'ABOVE AVG VALENCE'

WHEN VALENCE = 0.535 THEN 'AVG VALENCE'

WHEN VALENCE < 0.535 THEN 'BELOW AVERAGE'

**ELSE 'RANGE NOT FOUND'** 

END AS VALENCE\_RANGE

FROM AD\_SPOTIFY)

**GROUP BY 1** 

## ORDER BY 2 DESC;

RANGE NOT FOUND

```
-- 16. Number of Songs for different valence ranges(above)
 516
517
            SELECT VALENCE_RANGE,COUNT(*)
FROM (SELECT TRACK_NAME, VALENCE,TRACK_POPULARITY,
CASE WHEN VALENCE > 0.555 THEN 'ABOVE AVG VALENCE'
WHEN VALENCE = 0.555 THEN 'AVG VALENCE'
WHEN VALENCE < 0.555 THEN 'AVG VALENCE'
ELSE 'RANGE NOT FOUND'
END AS VALENCE_RANGE
FROM AD_SPOTIFY)
GROUP BY 1
 518
 519
520
521
522
523
524
 525
              GROUP BY 1
ORDER BY 2 DESC;
→ Results  

✓ Chart
                                                                                                                                                                                                                                                                                 Q III ± II
       VALENCE_RANGE
                                                  COUNT(*)
                                                                                                                                                                                                                                                          Query Details
       ABOVE AVG VALENCE
                                                         1,166
                                                                                                                                                                                                                                                                                                     37ms
                                                                                                                                                                                                                                                          Query duration
       BELOW AVERAGE
                                                         1.130
       AVG VALENCE
                                                                                                                                                                                                                                                          Query ID 01af5a78-3200-e80f-0...
```

VALENCE\_RANGE

/\* 17. Speechiness Analsis: Top 20 track\_name, speechiness, tempo, speechiness > 0.081-> Above Avg Speechiness speechiness = 0.081-> Avg Speechiness speechiness < 0.081-> Below Speechiness \*/

SELECT TRACK\_NAME, SPEECHINESS, TEMPO,

CASE WHEN SPEECHINESS > 0.081 THEN 'ABOVE AVG SPEECHINESS'

WHEN SPEECHINESS = 0.081 THEN 'AVG SPEECHINESS'

WHEN SPEECHINESS < 0.081 THEN 'BELOW AVG SPEECHINESS'

ELSE 'SPEECHINESS CANNOT BE DETERMINED'

END AS SPECCHINESS\_TYPE

FROM AD\_SPOTIFY

**ORDER BY 1 DESC** 

#### LIMIT 20;

```
/* 17. Speechiness Analsis : Top 20 track_name, speechiness, tempo, speechiness > 0.081-> Above Avg Speechiness speechiness = 0.081-> Avg Speechiness speechiness < 0.081-> Below Speechiness */
          SELECT TRACK_NAME, SPEECHINESS, TEMPO,
CASE WHEN SPEECHINESS > 0.081 THEN 'ABOVE AVG SPEECHINESS'
WHEN SPEECHINESS = 0.081 THEN 'AVG SPEECHINESS'
WHEN SPEECHINESS < 0.081 THEN 'BELOW AVG SPEECHINESS'
ELSE 'SPEECHINESS CANNOT BE DETERMINED'
END AS SPEECHINESS_TYPE
FROM AD_SPOTIFY
ORDER BY 1 DESC
LIMIT 20;
533
Q III ± III
     TRACK_NAME
                                                             SPEECHINESS
                                                                                                                                                                                                  Query Details
     you broke me first
                                                                    0.0500
                                                                                    124.148 BELOW AVG SPEECHINESS
                                                                    0.1700
                                                                                     81.112 ABOVE AVG SPEECHINESS
     when the party's over
                                                                    0.0972
                                                                                     82.642 ABOVE AVG SPEECHINESS
                                                                                                                                                                                                  Query ID 01af5a78-3200-e7c4-0...
                                                                    0.0280
                                                                                    129.960 BELOW AVG SPEECHINESS
                                                                    0.0338
                                                                                    100 607 BELOW AVG SPEECHINESS
                                                                                                                                                                                                  TRACK_NAME
    traitor
                                                                                    100.607 BELOW AVG SPEECHINESS
                                                                    0.0338
```

positions

106,966 BELOW AVG SPEECHINESS

-- no of songs in each speechiness type

SELECT SPECCHINESS\_TYPE,COUNT(\*)

FROM (SELECT \*,

thank u next

CASE WHEN SPEECHINESS > 0.081 THEN 'ABOVE AVG SPEECHINESS'

0.0658

WHEN SPEECHINESS = 0.081 THEN 'AVG SPEECHINESS'

WHEN SPEECHINESS < 0.081 THEN 'BELOW AVG SPEECHINESS'

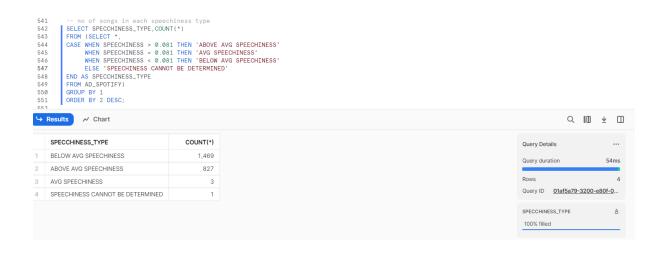
ELSE 'SPEECHINESS CANNOT BE DETERMINED'

END AS SPECCHINESS\_TYPE

FROM AD\_SPOTIFY)

**GROUP BY 1** 

ORDER BY 2 DESC;



/\*18. Acoustic Analysis: DISTINCT TOP 25 track\_name, album, artist\_name, acousticness (acousticness BETWEEN 0 AND 0.40000 -> 'Not Acoustic' (acousticness BETWEEN 0.40001 AND 0.80000) ->'Acoustic' (acousticness BETWEEN 0.80001 AND 1) ->'Highly Acoustic' \*/

SELECT TRACK\_NAME, ALBUM, ARTIST\_NAME, ACOUSTICNESS,

CASE WHEN ACOUSTICNESS BETWEEN 0 AND 0.4000 THEN 'NOT ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.40001 AND 0.8 THEN 'ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.80001 AND 1 THEN 'HIGHLY ACOUSTIC'

ELSE 'ACOUSTICNESS CANNOT BE DETERMINED'

**END AS ACOUSTICITY** 

FROM AD\_SPOTIFY

**ORDER BY 1 DESC** 

#### LIMIT 25:

```
/*18. Acoustic Analysis : DISTINCT TOP 25 track_name, album, artist_name, acousticness (acousticness BETWEEN 0.40001 AND 0.400000 -> 'Not Acoustic' (acousticness BETWEEN 0.40001 AND 0.80000) ->'Acoustic' (acousticness BETWEEN 0.80001 AND 1) ->'Highly Acoustic' */
           SELECT TRACK_NAME,ALBUM, ARTIST_NAME,ACOUSTICNESS,
CASE WHEN ACOUSTICNESS BETWEEN 0 AND 0.4000 THEN 'NOT ACOUSTIC'
WHEN ACOUSTICNESS BETWEEN 0.40001 AND 0.8 THEN 'ACOUSTIC'
WHEN ACOUSTICNESS BETWEEN 0.80001 AND 1 THEN 'HIGHLY ACOUSTIC'
ELSE 'ACOUSTICNESS CANNOT BE DETERMINED'
555
556
557
558
559
            END AS ACOUSTICITY
           FROM AD_SPOTIFY
ORDER BY 1 DESC
LIMIT 25;
→ Results  

✓ Chart
                                                                                                                                                                                                                                   Q III
     TRACK_NAME
                                                            ALBUM
                                                                                                                           ARTIST_NAME
                                                                                                                                                          ACOUSTICNESS ACOUSTICITY
                                                                                                                                                                                                               Query Details
                                                                                                                                                               0.78500000
                                                                                                                                                                                  ACOUSTIC
                                                                                                                                                                                                                Query duration
                                                                                                                           Taylor Swift
                                                                                                                                                               0.83300000 HIGHLY ACOUSTI
                                                            WHEN WE ALL FALL ASLEEP WHERE DO WE GO?
                                                                                                                                                                                                               Rows
                                                                                                                                                               0.97800000 HIGHLY ACOUSTI
     when the party's over
                                                                                                                                                                                                               Query ID 01af5a79-3200-e80f-
     we fell in love in october
                                                            we fell in love in october / October Passed Me By
                                                                                                                           airl in red
                                                                                                                                                               0.11300000 NOT ACQUISTIC
                                                                                                                           Olivia Rodrigo
                                                                                                                                                               0.69100000
                                                                                                                                                                                                               TRACK_NAME
                                                                                                                          Olivia Rodrigo
                                                            SOUR
                                                                                                                                                               0.69100000
                                                                                                                                                                                  ACQUISTIC
                                                                                                                                                                                                               traitor
                                                                                                                                                               0.22900000 NOT ACOUSTIC
                                                                                                                           Ariana Grande
     thank u next
                                                            thank u next
                                                                                                                                                                                                               positions
```

-- no of songs categories in each acoustic range

SELECT ACOUSTICITY, COUNT(\*) FROM (SELECT TRACK\_NAME,ALBUM, ARTIST\_NAME,ACOUSTICNESS,

CASE WHEN ACOUSTICNESS BETWEEN 0 AND 0.4000 THEN 'NOT ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.40001 AND 0.8 THEN 'ACOUSTIC'

WHEN ACOUSTICNESS BETWEEN 0.80001 AND 1 THEN 'HIGHLY ACOUSTIC'

ELSE 'ACOUSTICNESS CANNOT BE DETERMINED'

**END AS ACOUSTICITY** 

FROM AD\_SPOTIFY)

→ Results ~ Chart

## GROUP BY 1;

```
565
-- no of songs categories in each acoustic range
566
SELECT ACOUSTICITY, COUNT(*) FROM (SELECT TRACK_NAME, ALBUM, ARTIST_NAME, ACOUSTICNESS,
567
CASE WHEN ACOUSTICNESS BETWEEN 0 AND 0.4000 THEN 'NOT ACOUSTIC'
WHEN ACOUSTICNESS BETWEEN 0.40001 AND 0.8 THEN 'ACOUSTIC'
WHEN ACOUSTICNESS BETWEEN 0.80001 AND 1 THEN 'HIGHLY ACOUSTIC'
ELSE 'ACOUSTICNESS CANNOT BE DETERMINED'
571
END AS ACOUSTICITY
FROM AD_SPOTIFY)
GROUP BY 1;
```

	ACOUSTICITY	COUNT(*)
	NOT ACOUSTIC	2,018
	ACOUSTIC	229
3	HIGHLY ACOUSTIC	52
	ACOUSTICNESS CANNOT BE DETERMINED	1