Spotify Analysis

Introduction

Spotify is a digital music streaming service that provides users access to over 82 million songs, podcasts and audio books. The app was developed by Daniel Ek and Martin Lorenzton in 2006. This app has become a family name over the years and boasts over 457 million subscribers as of 2022, rivaling SoundCloud and Apple Music.

Spotify measures the popularity of its' artists based on their monthly listeners and number of streams they receive on songs produced. These streams are then multipled by (0.003) and paid to artists as "Royalties", it is a modernized system of monetizing digital sales from traditional album sales (100 streams = 1 album). Ed Sheeran was Spotify's most streamed artist in 2019, however, the rank placements change rapidly depending on album relases, EP's, mixtapes and so forth!

Spotify is a perfect dataset to measure the popularity of songs against various music elements, across a large set of songs throughout the decades. This analysis can be used to demonstrate how peoples music tastes have been translated throughout the past two decades!

I will be creating an exploratory analysis by creating data visualizations and conducting statistical analyses to investigate the relationship between the use of non-traditional musical elements and the popularity of Spotify hits from 2000 to 2019.

Summary of Analysis (need to perform this)

- Top Songs based on popularity
- Top songs from each year
- Analysis based on Tempo
- Analysis based on energy (db)
- Analysis based on Danceability
- Analysis based on Loudness
- Analysis based on Valency
- Analysis based on Speechiness
- Analysis based on Acousticness

Table Structure:

Create a table named PLAYLIST with the following structure:

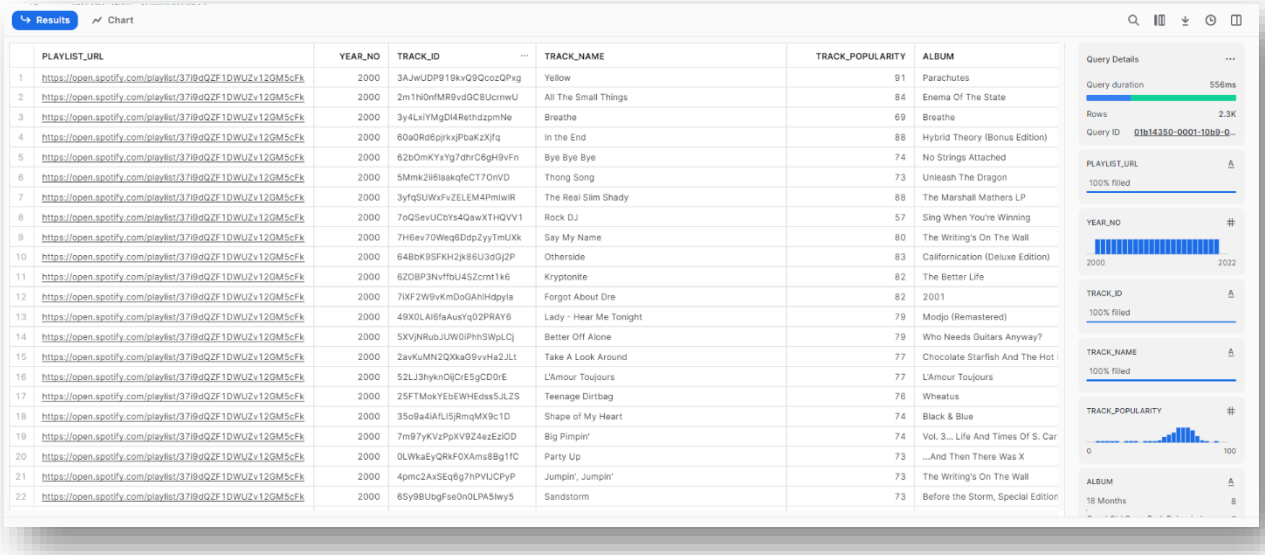
```
CREATE OR REPLACE TABLE VS_PLAYLIST
(
 PLAYLIST_URL VARCHAR(100),
 YEAR_NO INT,
 TRACK_ID VARCHAR(50),
 TRACK_NAME VARCHAR(120),
 TRACK_POPULARITY INT,
 ALBUM VARCHAR(120),
 ARTIST_ID VARCHAR(30) ,
 ARTIST_NAME VARCHAR(50),
 ARTIST_GENRES VARCHAR(210),
 ARTIST_POPULARITY INT,
 DANCE_ABILITY DECIMAL(6,4),
```

```
 ENERGY DECIMAL(6,4),
 KEY_ID TINYINT,
 LOUDNESS DECIMAL(6,4),
 MODE_BIT TINYINT,
 SPEECHINESS DECIMAL(6,4),
 ACOUSTICNESS DECIMAL(10,8),
 INSTRUMENTALNESS DECIMAL(15,10),
 LIVENESS DECIMAL(6,4),
 VALENCE DECIMAL(6,4),
 TEMPO DECIMAL(7,4),
 DURATION_MS INT,
 TIME_SIGNATURE TINYINT,
 PRIMARY KEY (TRACK_ID, ARTIST_ID)
);
```

Task:

1. Check the entire dataset.

```
SELECT * FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
```



	PLAYLIST_URL	YEAR_NO	TRACK_ID	TRACK_NAME	TRACK_POPULARITY	ALBUM
1	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	3AJwUDP919kvQ9QcozQPxg	Yellow	91	Parachutes
2	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	2m1hl0nfMR9vdGC8UcrnwU	All The Small Things	84	Enema Of The State
3	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	3y4LxiYMgDl4RethdzpmNe	Breathe	69	Breathe
4	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	60a0Rd6pjrkxjPbaKzXjfq	In the End	88	Hybrid Theory (Bonus Edition)
5	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	62bOmKYxYg7dhrC6gH9vFn	Bye Bye Bye	74	No Strings Attached
6	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	5Mmk2ii6laakqfeCT7OnVD	Thong Song	73	Unleash The Dragon
7	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	3yfqSUWxFvZELEM4PmlwIR	The Real Slim Shady	88	The Marshall Mathers LP
8	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	7oQSevUCbYs4QawXTHQVV1	Rock DJ	57	Sing When You're Winning
9	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	7H6ev70Weq6DdpZyyTmUXk	Say My Name	80	The Writing's On The Wall
10	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	64BbK9SFKH2jk86U3dGj2P	Otherside	83	Californication (Deluxe Edition)
11	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	6ZOBP3NvffbU4SZcrnt1k6	Kryptonite	82	The Better Life
12	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	7iXF2W9vKmDoGAhlHdpyla	Forgot About Dre	82	2001
13	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	49X0LAl6faAusYq02PRAY6	Lady - Hear Me Tonight	79	Modjo (Remastered)
14	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	5XVjNRubJUW0iPhhSWpLCj	Better Off Alone	79	Who Needs Guitars Anyway?
15	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	2avKuMN2QXkaG9vvHa2JLt	Take A Look Around	77	Chocolate Starfish And The Hot
16	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	52LJ3hyknOljCrE5gCD0rE	L'Amour Toujours	77	L'Amour Toujours
17	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	25FTMokYEbEWHEdss5JLZS	Teenage Dirtbag	76	Wheatus
18	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	35o9a4iAfLl5jRmqMX9c1D	Shape of My Heart	74	Black & Blue
19	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	7m97yKVzPpXV9Z4ezEzlOD	Big Pimpin'	74	Vol. 3... Life And Times Of S. Car
20	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	0LWkaEyQRkF0XAms8Bg1fC	Party Up	73	...And Then There Was X
21	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	4pmc2AxSEq6g7hPVlJCPyP	Jumpin', Jumpin'	73	The Writing's On The Wall
22	https://open.spotify.com/playlist/37i9dQZF1DWUZv12GM5cFk	2000	6Sy9BUbgFse0n0LPA5lwy5	Sandstorm	73	Before the Storm, Special Edition

2. Number of songs on Spotify for each artist

```
SELECT ARTIST_NAME,
COUNT(TRACK_NAME) AS NUM_OF_SONG
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
GROUP BY 1
ORDER BY 2 DESC;
```

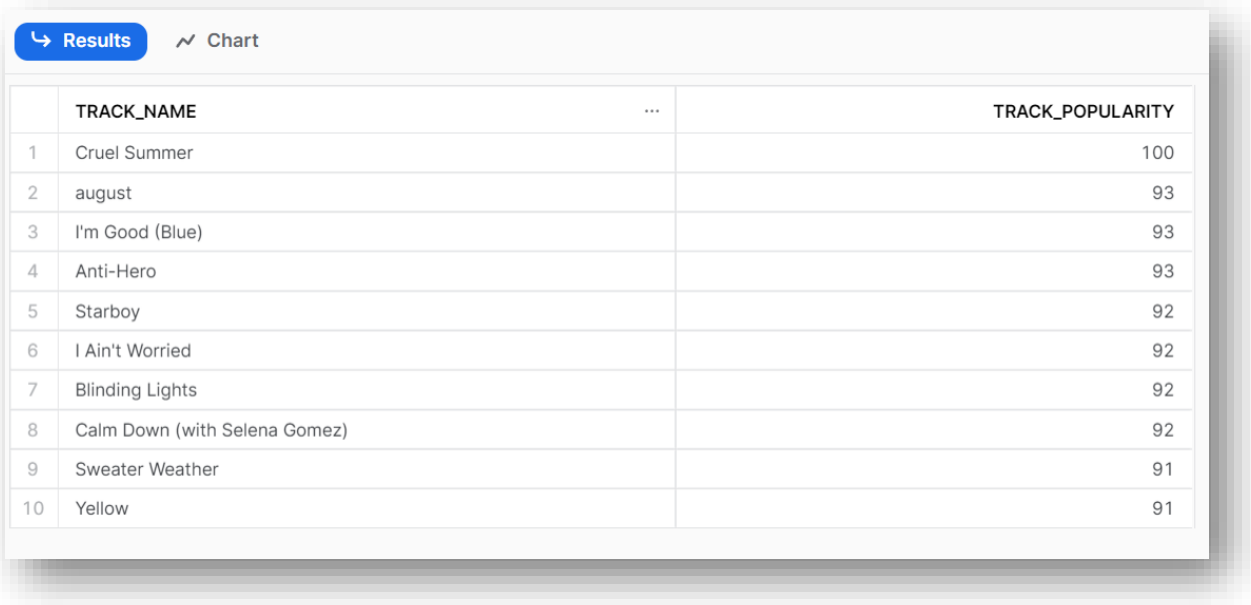
Results | Chart

	ARTIST_NAME	NUM_OF_SONG
1	Drake	32
2	Taylor Swift	31
3	Rihanna	27
4	Ariana Grande	22
5	BeyoncÃ©	22
6	Justin Bieber	21
7	Calvin Harris	21
8	P!nk	20
9	Ed Sheeran	19
10	Coldplay	18

---

3. Top 10 songs based on popularity

```
SELECT TRACK_NAME, TRACK_POPULARITY
FROM  DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
ORDER BY 2 DESC
LIMIT 10;
```



Results | Chart

	TRACK_NAME	TRACK_POPULARITY
1	Cruel Summer	100
2	august	93
3	I'm Good (Blue)	93
4	Anti-Hero	93
5	Starboy	92
6	I Ain't Worried	92
7	Blinding Lights	92
8	Calm Down (with Selena Gomez)	92
9	Sweater Weather	91
10	Yellow	91

---

4. Total number of songs on spotify based on year

```
SELECT YEAR_NO AS YEAR ,
COUNT(TRACK_NAME) AS NUM_OF_SONG
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
GROUP BY 1
ORDER BY 1 ;
```

Results | Chart

	...	YEAR	NUM_OF_SONG
1		2000	100
2		2001	100
3		2002	100
4		2003	100
5		2004	99
6		2005	100
7		2006	100
8		2007	100
9		2008	100
10		2009	100
11		2010	100

---

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

```
SELECT YEAR_NO,
       MAX(TRACK_POPULARITY) AS MAX_TRACK_POPULARITY,
       MAX(TRACK_NAME) AS MAX_TRACK_NAME
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
WHERE YEAR_NO BETWEEN 2000 AND 2022
GROUP BY YEAR_NO
ORDER BY YEAR_NO DESC;
```

Results | Chart

	YEAR_NO	MAX_TRACK_POPULARITY	MAX_TRACK_NAME
1	2022	93	traitor
2	2021	92	willow
3	2020	93	you broke me first
4	2019	100	when the party's over
5	2018	90	we fell in love in october
6	2017	90	iSpy (feat. Lil Yachty)
7	2016	92	You Don't Own Me (feat. G-Eazy)
8	2015	88	oui
9	2014	89	You Know You Like It
10	2013	91	human

---

6. Analysis based on Tempo :

tempo > 121.08 -> 'Above Average Tempo'

tempo = 121.08 -> 'Average Tempo'

tempo < 121.08 -> 'Below Average Tempo'

```
SELECT TRACK_NAME,ENERGY,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 ANALYSIS_OF_TEMPO
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
```

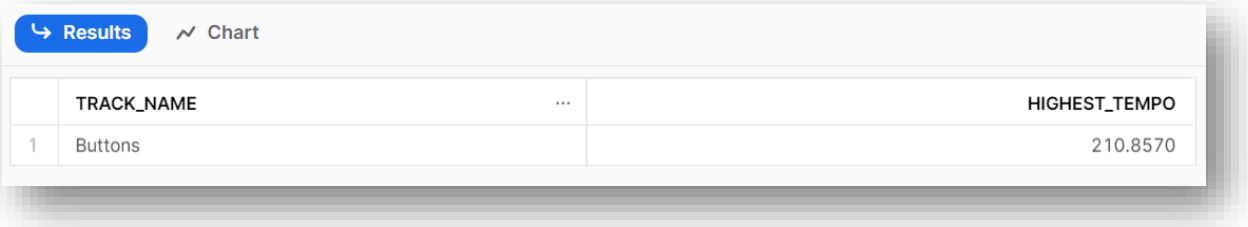
Results | Chart

	TRACK_NAME	ENERGY	TEMPO	ANALYSIS_OF_TEMPO
1	Yellow	0.6610	173.3720	Above Average Tempo
2	All The Small Things	0.8970	148.7260	Above Average Tempo
3	Breathe	0.4960	136.8590	Above Average Tempo
4	In the End	0.8640	105.1430	Below Average Tempo
5	Bye Bye Bye	0.9260	172.6380	Above Average Tempo
6	Thong Song	0.8880	121.5490	Above Average Tempo
7	The Real Slim Shady	0.6610	104.5040	Below Average Tempo
8	Rock DJ	0.7620	103.0320	Below Average Tempo
9	Say My Name	0.6780	138.0090	Above Average Tempo
10	Otherside	0.7950	123.2290	Above Average Tempo

---

7. Songs with Highest Tempo

```
SELECT TRACK_NAME,MAX(TEMPO)AS HIGHEST_TEMPO
   FROM SPOTIFY.PUBLIC.VS_PLAYLIST
    GROUP BY 1
     ORDER BY 2 DESC
      LIMIT 1;
```



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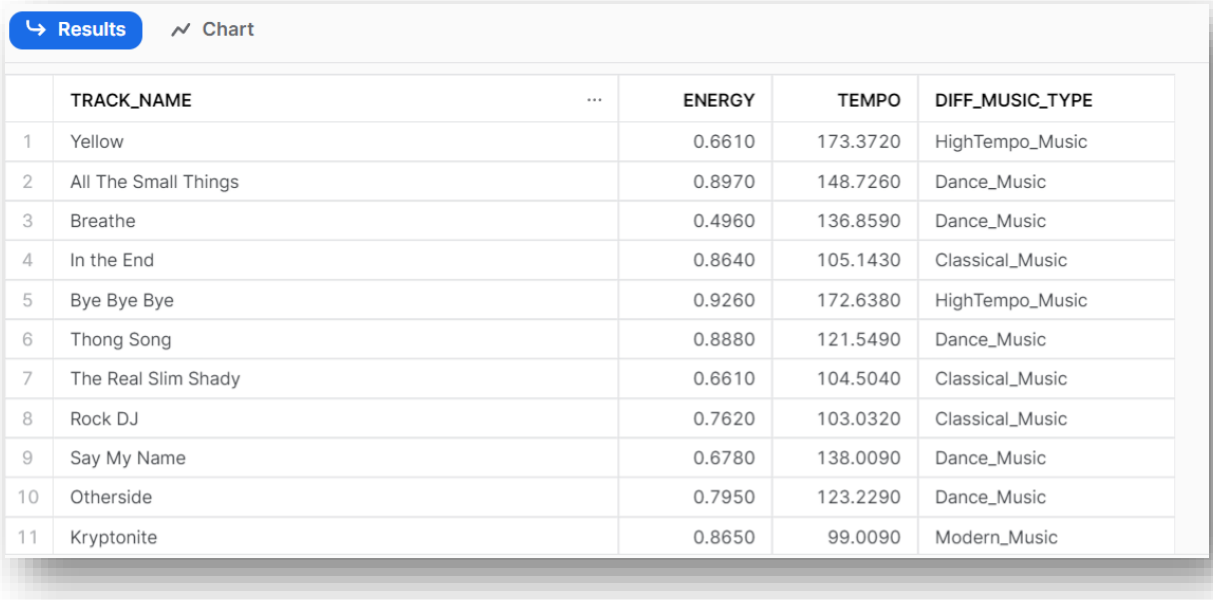
8. Number of Songs for different Tempo Range : track_name, energy
Modern_Music -> tempo BETWEEN 60.00 AND 100.00
Classical_Music -> tempo BETWEEN 100.001 AND 120.00
Dance_Music -> tempo BETWEEN 120.001 AND 150.01
HighTempo_Music -> tempo > 150.01

```
SELECT
  TRACK_NAME,
  ENERGY,
  TEMPO,
  CASE
    WHEN TEMPO BETWEEN 60.00 AND 100.00 THEN 'Modern_Music'
    WHEN TEMPO BETWEEN 100.001 AND 120.00 THEN 'Classical_Music'
    WHEN TEMPO BETWEEN 120.001 AND 150.01 THEN 'Dance_Music'
    WHEN TEMPO > 150.01 THEN 'HighTempo_Music'
  END AS DIFF_MUSIC_TYPE
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
```



Results | Chart

	TRACK_NAME	ENERGY	TEMPO	DIFF_MUSIC_TYPE
1	Yellow	0.6610	173.3720	HighTempo_Music
2	All The Small Things	0.8970	148.7260	Dance_Music
3	Breathe	0.4960	136.8590	Dance_Music
4	In the End	0.8640	105.1430	Classical_Music
5	Bye Bye Bye	0.9260	172.6380	HighTempo_Music
6	Thong Song	0.8880	121.5490	Dance_Music
7	The Real Slim Shady	0.6610	104.5040	Classical_Music
8	Rock DJ	0.7620	103.0320	Classical_Music
9	Say My Name	0.6780	138.0090	Dance_Music
10	Otherside	0.7950	123.2290	Dance_Music
11	Kryptonite	0.8650	99.0090	Modern_Music

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'
energy BETWEEN 0.3 AND 0.6 -> 'Moderate Music'
Energy >0.6 -> 'Energetic Music'

```
SELECT
  TRACK_NAME,
  DANCE_ABILITY,
  TRACK_POPULARITY,
  CASE
    WHEN ENERGY > 0.64 THEN 'Above Average Energy'
    WHEN ENERGY = 0.64 THEN 'Above Energy'
    WHEN ENERGY < 0.64 THEN 'Below Average Energy'
    WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'Calm Music'
    WHEN ENERGY BETWEEN 0.3 AND 0.6 THEN 'Moderate Music'
    WHEN ENERGY > 0.6 THEN 'Energetic Music'
  END AS ENERGY_ANALYSIS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST;
```

Results Chart

	TRACK_NAME	DANCE_ABILITY	TRACK_POPULARITY	ENERGY_ANAL
1	Yellow	0.4290	91	Above Average
2	All The Small Things	0.4340	84	Above Average
3	Breathe	0.5290	69	Below Average
4	In the End	0.5560	88	Above Average
5	Bye Bye Bye	0.6100	74	Above Average
6	Thong Song	0.7060	73	Above Average
7	The Real Slim Shady	0.9490	88	Above Average
8	Rock DJ	0.7120	57	Above Average
9	Say My Name	0.7130	80	Above Average
10	Otherside	0.4580	83	Above Average

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

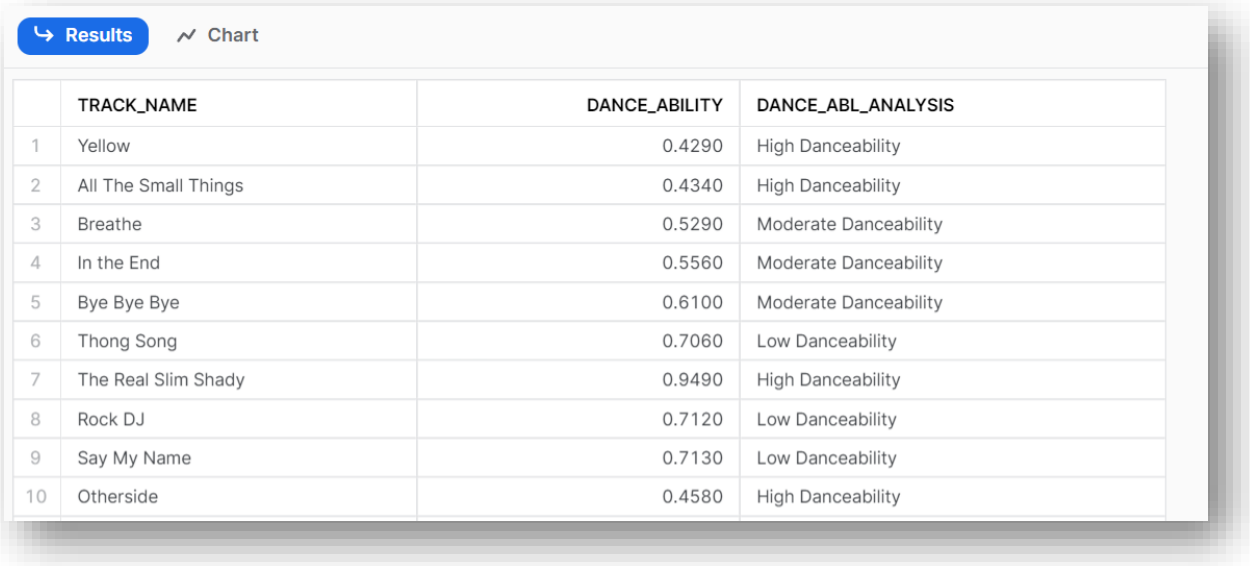
```
SELECT
  COUNT(*) AS SONG_COUNT,
  CASE
    WHEN ENERGY > 0.64 THEN 'Above Average Energy'
    WHEN ENERGY = 0.64 THEN 'Above Energy'
    WHEN ENERGY < 0.64 THEN 'Below Average Energy'
    WHEN ENERGY BETWEEN 0.1 AND 0.3 THEN 'Calm Music'
    WHEN ENERGY BETWEEN 0.3 AND 0.6 THEN 'Moderate Music'
    WHEN ENERGY > 0.6 THEN 'Energetic Music'
  END AS ENERGY_ANALYSIS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
GROUP BY ENERGY_ANALYSIS;
```

Results Chart

	SONG_COUNT	ENERGY_ANALYSIS
1	1502	Above Average Energy
2	796	Below Average Energy
3	1	Above Energy

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,
  DANCE_ABILITY,
  CASE
    WHEN DANCE_ABILITY BETWEEN 0.69 AND 0.79 THEN 'Low Danceability'
    WHEN (DANCE_ABILITY BETWEEN 0.49 AND 0.68) OR (DANCE_ABILITY
BETWEEN 0.79 AND 0.89) THEN 'Moderate Danceability'
    WHEN (DANCE_ABILITY BETWEEN 0.39 AND 0.49) OR (DANCE_ABILITY
BETWEEN 0.89 AND 0.99) THEN 'High Danceability'
    WHEN DANCE_ABILITY < 0.39 OR DANCE_ABILITY > 0.99 THEN 'Can''t Dance
on this one'
  END AS DANCE_ABL_ANALYSIS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
LIMIT 20;
```



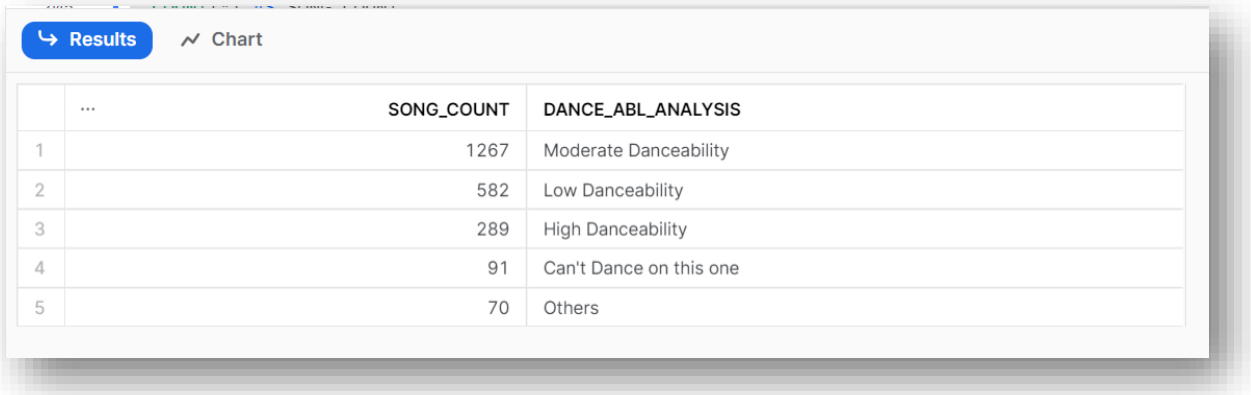
Results | Chart

	TRACK_NAME	DANCE_ABILITY	DANCE_ABL_ANALYSIS
1	Yellow	0.4290	High Danceability
2	All The Small Things	0.4340	High Danceability
3	Breathe	0.5290	Moderate Danceability
4	In the End	0.5560	Moderate Danceability
5	Bye Bye Bye	0.6100	Moderate Danceability
6	Thong Song	0.7060	Low Danceability
7	The Real Slim Shady	0.9490	High Danceability
8	Rock DJ	0.7120	Low Danceability
9	Say My Name	0.7130	Low Danceability
10	Otherside	0.4580	High Danceability

---

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

```
SELECT
  COUNT(*) AS SONG_COUNT,
  CASE
    WHEN DANCE_ABILITY BETWEEN 0.69 AND 0.79 THEN 'Low Danceability'
    WHEN (DANCE_ABILITY BETWEEN 0.49 AND 0.68) OR (DANCE_ABILITY
BETWEEN 0.79 AND 0.89) THEN 'Moderate Danceability'
    WHEN (DANCE_ABILITY BETWEEN 0.39 AND 0.49) OR (DANCE_ABILITY
BETWEEN 0.89 AND 0.99) THEN 'High Danceability'
    WHEN DANCE_ABILITY < 0.39 OR DANCE_ABILITY > 0.99 THEN 'Can''t Dance
on this one'
    ELSE 'Others'
  END AS DANCE_ABL_ANALYSIS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
GROUP BY DANCE_ABL_ANALYSIS
ORDER BY SONG_COUNT DESC;
```



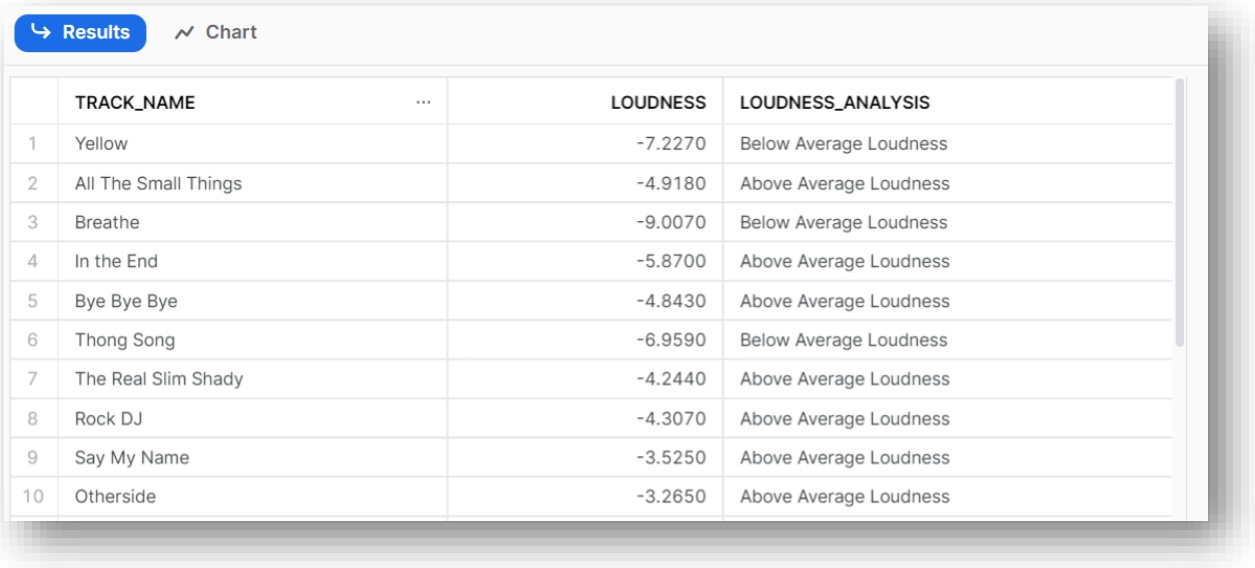
Results | Chart

	...	SONG_COUNT	DANCE_ABL_ANALYSIS
1		1267	Moderate Danceability
2		582	Low Danceability
3		289	High Danceability
4		91	Can't Dance on this one
5		70	Others

---

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 'Others'
  END AS LOUDNESS_ANALYSIS
  FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
  LIMIT 20;
```



Results | Chart

	TRACK_NAME	LOUDNESS	LOUDNESS_ANALYSIS
1	Yellow	-7.2270	Below Average Loudness
2	All The Small Things	-4.9180	Above Average Loudness
3	Breathe	-9.0070	Below Average Loudness
4	In the End	-5.8700	Above Average Loudness
5	Bye Bye Bye	-4.8430	Above Average Loudness
6	Thong Song	-6.9590	Below Average Loudness
7	The Real Slim Shady	-4.2440	Above Average Loudness
8	Rock DJ	-4.3070	Above Average Loudness
9	Say My Name	-3.5250	Above Average Loudness
10	Otherside	-3.2650	Above Average Loudness

---

14. Number of Songs for different loudness ranges(above

```
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 'Below Low Loudness'
  END AS loudness_category,
  COUNT(*) AS NUM_OF_SONG
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
GROUP BY loudness_category
ORDER BY NUM_OF_SONG DESC;
```

Results Chart

	LOUDNESS_CATEGORY	NUM_OF_SONG
1	Above Average Loudness	1300
2	Below Average Loudness	907
3	Peak Loudness	84
4	Low Loudness	6
5	Below Low Loudness	2

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'

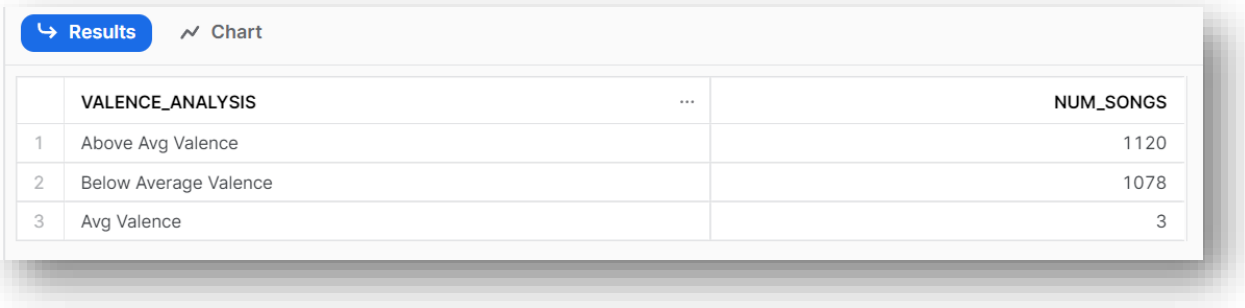
```
SELECT TRACK_NAME,
TRACK_POPULARITY,
VALENCE,
CASE
 WHEN valence > 0.535 THEN 'Above Avg Valence'
 WHEN valence = 0.535 THEN 'Avg Valence'
 WHEN valence < 0.535 THEN 'Below Avg Valence'
END AS VALENCE_ANALYSIS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
LIMIT 20;
```

Results Chart

	TRACK_NAME	TRACK_POPULARITY	VALENCE	VALENCE_ANALYSIS
1	Yellow	91	0.2850	Below Avg Valence
2	All The Small Things	84	0.6840	Above Avg Valence
3	Breathe	69	0.2780	Below Avg Valence
4	In the End	88	0.4000	Below Avg Valence
5	Bye Bye Bye	74	0.8610	Above Avg Valence
6	Thong Song	73	0.7140	Above Avg Valence
7	The Real Slim Shady	88	0.7600	Above Avg Valence
8	Rock DJ	57	0.8420	Above Avg Valence
9	Say My Name	80	0.7340	Above Avg Valence
10	Otherside	83	0.5130	Below Avg Valence

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

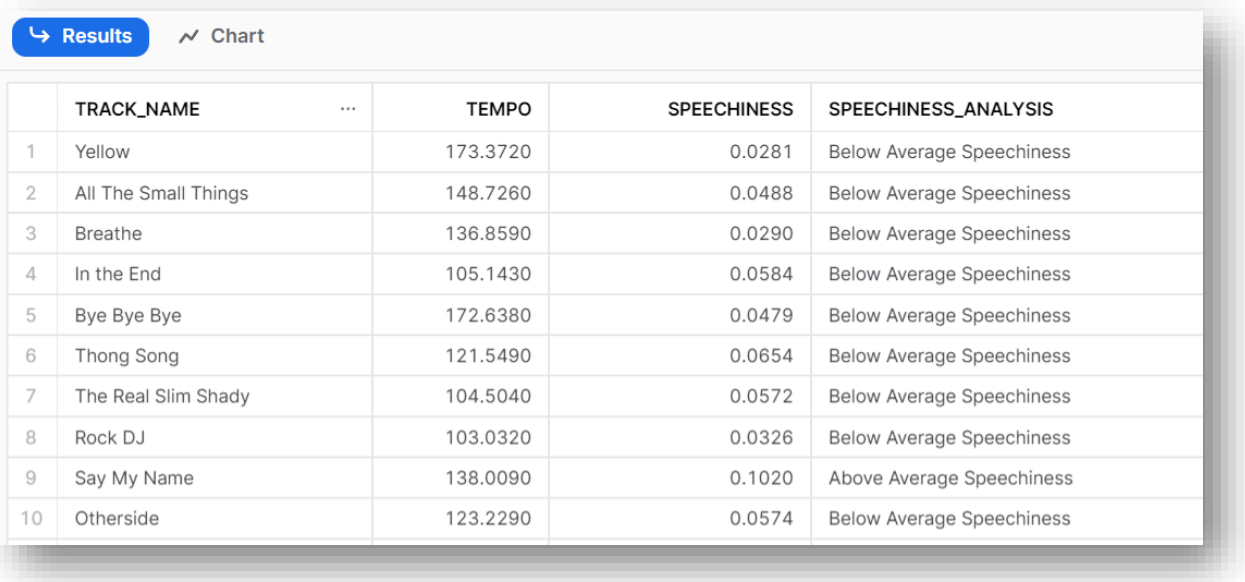
```
SELECT
  CASE
    WHEN VALENCE > 0.535 THEN 'Above Avg Valence'
    WHEN VALENCE = 0.535 THEN 'Avg Valence'
    WHEN VALENCE < 0.535 THEN 'Below Average Valence'
    ELSE 'Other'
  END AS VALENCE_ANALYSIS,
  COUNT(DISTINCT TRACK_ID) AS NUM_SONGS
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
GROUP BY VALENCE_ANALYSIS
ORDER BY NUM_SONGS DESC;
```


Results Chart

	VALENCE_ANALYSIS	NUM_SONGS
1	Above Avg Valence	1120
2	Below Average Valence	1078
3	Avg Valence	3

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,
  TEMPO,
  SPEECHINESS,
  CASE
    WHEN SPEECHINESS > 0.081 THEN 'Above Average Speechiness'
    WHEN SPEECHINESS = 0.081 THEN 'Average Speechiness'
    WHEN SPEECHINESS < 0.081 THEN 'Below Average Speechiness'
  END AS Speechiness_Analysis
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
LIMIT 20;
```



Results | Chart

	TRACK_NAME	TEMPO	SPEECHINESS	SPEECHINESS_ANALYSIS
1	Yellow	173.3720	0.0281	Below Average Speechiness
2	All The Small Things	148.7260	0.0488	Below Average Speechiness
3	Breathe	136.8590	0.0290	Below Average Speechiness
4	In the End	105.1430	0.0584	Below Average Speechiness
5	Bye Bye Bye	172.6380	0.0479	Below Average Speechiness
6	Thong Song	121.5490	0.0654	Below Average Speechiness
7	The Real Slim Shady	104.5040	0.0572	Below Average Speechiness
8	Rock DJ	103.0320	0.0326	Below Average Speechiness
9	Say My Name	138.0090	0.1020	Above Average Speechiness
10	Otherside	123.2290	0.0574	Below Average Speechiness

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 DISTINCT
  TRACK_NAME,
  ALBUM,
  ARTIST_NAME,
  ACOUSTICNESS,
  CASE
    WHEN ACOUSTICNESS BETWEEN 0 AND 0.4 THEN 'Not Acoustic'
    WHEN ACOUSTICNESS BETWEEN 0.4 AND 0.8 THEN 'Acoustic'
    WHEN ACOUSTICNESS BETWEEN 0.8 AND 1 THEN 'Highly Acoustic'
    ELSE 'Others'
  END AS Acousticness_Analysis
FROM DEMO_DATABASE.PUBLIC.VS_PLAYLIST
LIMIT 25;
```

Results | Chart

	TRACK_NAME	ALBUM	ARTIST_NAME	ACOUSTICNESS	ACOUSTICNESS_ANALYSIS
1	Yellow	Parachutes	Coldplay	0.00239000	Not Acoustic
2	All The Small Things	Enema Of The State	blink-182	0.01030000	Not Acoustic
3	Breathe	Breathe	Faith Hill	0.17300000	Not Acoustic
4	In the End	Hybrid Theory (Bonus Edition)	Linkin Park	0.00958000	Not Acoustic
5	Bye Bye Bye	No Strings Attached	*NSYNC	0.03100000	Not Acoustic
6	Thong Song	Unleash The Dragon	Sisqo	0.11900000	Not Acoustic
7	The Real Slim Shady	The Marshall Mathers LP	Eminem	0.03020000	Not Acoustic
8	Rock DJ	Sing When You're Winning	Robbie Williams	0.02600000	Not Acoustic
9	Say My Name	The Writing's On The Wall	Destiny's Child	0.27300000	Not Acoustic
10	Otherside	Californication (Deluxe Edition)	Red Hot Chili Peppers	0.00316000	Not Acoustic