

Output of Spotify SQL queries

```
DROP TABLE IF EXISTS spotify;
```

```
CREATE TABLE spotify (
```

```
    artist VARCHAR(255),
```

```
    track VARCHAR(255),
```

```
    album VARCHAR(255),
```

```
    album_type VARCHAR(50),
```

```
    danceability FLOAT,
```

```
    energy FLOAT,
```

```
    loudness FLOAT,
```

```
    speechiness FLOAT,
```

```
    acousticness FLOAT,
```

```
    instrumentalness FLOAT,
```

```
    liveness FLOAT,
```

```
    valence FLOAT,
```

```
    tempo FLOAT,
```

```
    duration_min FLOAT,
```

```
    title VARCHAR(255),
```

```
    channel VARCHAR(255),
```

```
    views FLOAT,
```

```
    likes BIGINT,
```

```
    comments BIGINT,
```

```
licensed BOOLEAN,  
official_video BOOLEAN,  
stream BIGINT,  
energy_liveness FLOAT,  
most_played_on VARCHAR(50)  
);
```

```
SELECT * FROM spotify
```

```
SELECT COUNT (DISTINCT album) FROM spotify;
```

```
SELECT COUNT (DISTINCT artist) FROM spotify;
```

```
--Easy Level
```

```
--1.Retrieve the names of all tracks that have more than 1 billion streams.
```

```
SELECT * FROM spotify  
WHERE stream > 1000000000;
```

Data Output Messages Notifications

	artist character varying (255)	track character varying (255)	album character varying (255)	album_type character varying (50)
1	Gorillaz	Feel Good Inc.	Demon Days	album
2	Red Hot Chili Peppers	Californication	Californication (Deluxe Edition)	album
3	Red Hot Chili Peppers	Under the Bridge	Blood Sugar Sex Magik (Deluxe Edition)	album
4	50 Cent	In Da Club	Get Rich Or Die Tryin'	album
5	Coldplay	Yellow	Parachutes	album
6	Coldplay	Viva La Vida	Viva La Vida or Death and All His Friends	album
7	Coldplay	Something Just Like This	Memories...Do Not Open	album
8	Coldplay	The Scientist	A Rush of Blood to the Head	album
9	Coldplay	A Sky Full of Stars	Ghost Stories	album
10	Coldplay	Hymn for the Weekend	A Head Full of Dreams	album
11	Coldplay	Fix You	X&Y	album
12	Linkin Park	In the End	Hybrid Theory (Bonus Edition)	album
13	Linkin Park	Numb	Meteora	album
14	Radiohead	Creep	Pablo Honey	album
15	AC/DC	Highway to Hell	Highway to Hell	album
16	AC/DC	Thunderstruck	The Razors Edge	album
17	AC/DC	Back In Black	Back In Black	album
18	Black Eyed Peas	I Gotta Feeling	THE E.N.D. (THE ENERGY NEVER DIES)	album
19	Michael Jackson	Billie Jean	Thriller	album
20	Eminem	Without Me	The Eminem Show	album
21	Eminem	The Real Slim Shady	The Marshall Mathers LP	album

Total rows: 385 of 385 Query complete 00:00:00.221 Ln 44, Col 1

--2.List all albums along with their respective artists.

SELECT

 DISTINCT album, artist

FROM spotify

ORDER BY 1;

	album character varying (255)	artist character varying (255)
1	'Justments	Bill Withers
2	'N Sync UK Version	*NSYNC
3	'The Sounds of Nightwish Reborn: Early Demos for "Dark Passion Play" and B-Sides'	Nightwish
4	- TRAGEDY +	\$NOT
5	!Volare! The Very Best of the Gipsy Kings	Gipsy Kings
6	"Awaken, My Love!"	Childish Gambino
7	"Heroes" (2017 Remaster)	David Bowie
8	"Let's Rock"	The Black Keys
9	"Let Go" Dj Pack	Dina Rae
10	"Miguel"	Miguel Bosé
11	#1 (Colby O'Donis Remix)	Colby O'Donis
12	#1s ... and then some	Brooks & Dunn
13	#3	The Script
14	#FREESANTANA	Juelz Santana
15	#NAME?	Pablo Alborán
16	#NAME?	Vanesa Martín
17	#NAME?	Antonio Orozco
18	#NAME?	Jesse & Joy
19	#NAME?	Juanes
20	#NAME?	David Bisbal
21	#NAME?	Abel Pintos
22	#NAME?	Fonseca
Total rows: 1000 of 14179 Query complete 00:00:00.235 Ln 53, Col 3		

--3. Get the total number of comments for tracks where licensed = TRUE.

SELECT

SUM(comments) as total_comments

FROM spotify

```
WHERE licensed = 'true';
```

Data Output	Messages	Notifications
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<div> <div>total_comments</div> <div>numeric</div> <div>🔒</div> </div>		
1	497023475	

--4.Find all tracks that belong to the album type single.

```
SELECT * FROM spotify  
WHERE album_type = 'single';
```

Data Output Messages Notifications

	artist character varying (255)	track character varying (255)	album character varying (255)
1	Gorillaz	New Gold (feat. Tame Impala and Bootie Brown)	New Gold (feat. Tame Impala and Bootie Brown)
2	Gorillaz	New Gold (feat. Tame Impala and Bootie Brown) - Dom Dolla Re...	New Gold (feat. Tame Impala and Bootie Brown) [Dom Dolla Remix]
3	Gorillaz	Cracker Island (feat. Thundercat)	Cracker Island (feat. Thundercat)
4	50 Cent	Best Friend - Remix	Best Friend (Remix)
5	Metallica	Lux Æterna	Lux Æterna
6	Metallica	Screaming Suicide	Screaming Suicide
7	Daft Punk	Get Lucky (feat. Pharrell Williams & Nile Rodgers) - Radio Edit	Get Lucky (feat. Pharrell Williams & Nile Rodgers) [Radio Edit]
8	Linkin Park	Numb / Encore	Numb / Encore: MTV Ultimate Mash-Ups Presents Collision Course
9	Black Eyed Peas	Pump It Louder	Pump It Louder
10	P!nk	Never Gonna Not Dance Again	Never Gonna Not Dance Again
11	P!nk	Raise Your Glass	Raise Your Glass
12	P!nk	TRUSTFALL	TRUSTFALL
13	Pharrell Williams	Down In Atlanta	Down In Atlanta
14	Pharrell Williams	Cash In Cash Out	Cash In Cash Out
15	Pharrell Williams	Hit Different	Hit Different
16	Pharrell Williams	Just A Cloud Away	Just A Cloud Away
17	Khalid	lovely (with Khalid)	lovely (with Khalid)
18	Khalid	Numb	Numb
19	Khalid	Silence	Silence
20	Khalid	Love Lies (with Normani)	Love Lies (with Normani)
21	Shakira	Shakira: Bzrp Music Sessions, Vol. 53	Shakira: Bzrp Music Sessions, Vol. 53

Total rows: 1000 of 4973 Query complete 00:00:00.302 Ln 68. Col 1

--5.Count the total number of tracks by each artist.

```
SELECT  
  
    artist,  
  
    COUNT(*) as total_no_songs  
FROM spotify  
GROUP BY artist
```

Data Output Messages Notifications

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	artist character varying (255) 🔒	total_no_songs bigint 🔒
1	Lofi Fruits Music	10
2	Ray Charles	10
3	Joey Bada\$\$	10
4	La Mosca Tse-Tse	10
5	TheFatRat	10
6	Leo Dan	10
7	Tyga	10
8	Grupo Marca Registrada	10
9	Tyler, The Creator	10
10	NCT DREAM	10
11	Last Child	10
12	Plan B	10
13	Afgan	10
14	James Horner	10
15	Israel & Rodolfo	10
16	Xzibit	10
17	Otis Redding	10
18	Kato	10
19	Shakira	10
20	Foreigner	10
21	Stephen Cleobury	10
22	RZA	10

Total rows: 1000 of 2074 Query complete 00:00:00.184 Ln 75, Col 22

--Medium Level










--1.Calculate the average danceability of tracks in each album.

```
SELECT
album,
    avg(danceability) as avg_danceability
FROM spotify
GROUP BY 1
ORDER BY 2 DESC
```

Data Output Messages Notifications		
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	album character varying (255)	avg_danceability double precision
1	Funky Friday	0.975
2	FOR CERTAIN (Deluxe)	0.975
3	The House Is Burning [homies begged]	0.971
4	Quality Control: Control The Streets Volume 2	0.97
5	N9NA	0.97
6	Aka Entre el Humo	0.967
7	Peru (Remix)	0.966
8	Imdat (feat. Hadise)	0.964
9	Street Gossip	0.964
10	Tukoh Taka (Official FIFA Fan Festival™ Anthem)	0.963
11	Freddie's Inferno - Ghost Slowed	0.963
12	Harder Than Ever	0.963
13	Losing Interest	0.96
14	Lucky Day	0.957
15	Homework	0.956
16	Straight A's	0.954
17	DESPECHÁ RMX	0.954
18	Tap In	0.954
19	Starlight	0.954
20	Ai Preto	0.953
21	FAMILY	0.952
22	Drip or Drown	0.952
Total rows: 1000 of 11854 Query complete 00:00:00.186 Ln 89, Col 3		

--2.Find the top 5 tracks with the highest energy values.

```
SELECT
    track,
    MAX(energy)
FROM spotify
GROUP BY 1
ORDER BY 2 DESC
LIMIT 5
```

Data Output Messages Notifications		
         SQL		
	track character varying (255)	max double precision
1	Rain and Thunderstorm, Pt. 7	1
2	Rain and Thunderstorm, Pt. 33	1
3	Rain and Thunderstorm, Pt. 4	1
4	Rain and Thunderstorm, Pt. 6	1
5	Gentle Piano Melodies	1

Total rows: 5 of 5 Query complete 00:00:00.141 Ln 100, Col 4

--3.List all tracks along with their views and likes where official_video = TRUE.

```
SELECT
    track,
    SUM(views) as total_views,
```



```

SUM(likes) as total_likes
FROM spotify
WHERE official_video = 'true'
GROUP BY 1
ORDER BY 2 DESC

```

Data Output
Messages
Notifications

	track	total_views	total_likes
	character varying (255)	double precision	numeric
1	Despacito	16159296273	101577278
2	See You Again (feat. Charlie Puth)	11547595554	80295292
3	Shape of You	5908398479	31047780
4	Calma - Remix	5322011392	25649519
5	This Is What You Came For	5252059812	21207312
6	Swalla (feat. Nicki Minaj & Ty Dolla \$ign)	5162403752	28864162
7	Wheels on the Bus	4898831101	14396841
8	Taki Taki (with Selena Gomez, Ozuna & Cardi B)	4828403435	37552053
9	Uptown Funk (feat. Bruno Mars)	4821016218	20067879
10	Thrift Shop (feat. Wanz)	4508467245	30242165
11	Échame La Culpa	4491334603	20006575
12	Something Just Like This	4236043204	20565056
13	Sin Pijama	4172961620	17249780
14	Somebody That I Used To Know	4114890942	29168472
15	Con Altura	4093098189	18536081
16	Perfect	4080224385	24814514
17	Bang Bang	4002768766	22355292
18	No Me Conoce - Remix	3958118245	11841081
19	Sunflower - Spider-Man: Into the Spider-Verse	3954778068	27499619
20	Sugar	3947319650	16146579
21	Dusk Till Dawn (feat. Sia) - Radio Edit	3907550097	28299420
22	Bole Chudivan	3817613826	17771858

--4.For each album, calculate the total views of all associated tracks.

```

SELECT
    album,

```

```

track,
SUM(views)
FROM spotify
GROUP BY 1,2
ORDER BY 3

```

	album character varying (255)	track character varying (255)
1	¿Con Quién Se Queda El Perro?	¡Corre!
2	Sacala	Sacala
3	¿Con Quién Se Queda El Perro?	La De La Mala Suerte
4	DRIVE-IN (Ao Vivo)	Pulei na Piscina - Ao Vivo
5	A Farra Vem Até Mim (Ao Vivo)	A Farra Vem Até Mim - Ao Vivo
6	Luca Brasi 3	Me Too
7	Live In London - At The Royal Albert Hall	O Que É Que Tem
8	Para Aute: Pasaba por Aquí (feat. Abel Pintos, Carlos Rivera, Dani Martín, Estopa, Ismael Serrano, Jorge Drexler, Pedro Guerra, Silvio Rodríguez, Vanesa Martín & Xoel López)	Para Aute: Pasaba por Aquí (feat. Abel Pintos, Carlo
9	Ice Age: The Meltdown (Original Motion Picture Soundtrack)	Goodnight Sweet Possums - From "Ice Age The Mel
10	Now Or Never	Mirame - Remix
11	Drachenzähmen leicht gemacht 3 (Das Original-Hörspiel zum Kinofilm)	Drachenzähmen leicht gemacht 3 - Intro
12	Se Melhorar Estraga (Ao Vivo)	Imagina A Sentada - Ao Vivo
13	528 Hz Meditation Music	528 Hz Emotional Healing
14	Rangisari Lofi Mix	Rangisari Lofi Mix
15	ENR	Toda - Remix
16	Youngblood	Youngblood
17	Un Besito Más	Dueles
18	Próximo Passo (Ao Vivo)	Cheiro de Balada - Ao Vivo
19	Diego & Victor Hugo Ao Vivo Em São Paulo	Cheiro e Cabelo - Ao Vivo
20	Por Mais Beijos Ao Vivo (ao Vivo)	Alô Ambev (Segue Sua Vida) - Ao Vivo
21	Bollywood Music - Kumar Sanu At His Best, Vol. 2	Chura Ke Dil Mera (From "Main Khiladi Tu Anari")

Total rows: 1000 of 18682 Query complete 00:00:00.148 Ln 122, Col 1

--5.Retrieve the track names that have been streamed on Spotify more than YouTube.

```

SELECT * FROM
(
SELECT
track,
COALESCE(SUM(CASE WHEN most_played_on =
'Youtube' THEN stream END),0) as streamed_on_youtube,
COALESCE(SUM(CASE WHEN most_played_on =
'Spotify' THEN stream END),0) as streamed_on_spotify
FROM spotify
GROUP BY 1

```

) as t1










WHERE

streamed_on_spotify > streamed_on_youtube

AND

streamed_on_youtube <> 0

LIMIT 10

Data Output Messages Notifications			
         SQL			
	track character varying (255)	streamed_on_youtube numeric	streamed_on_spotify numeric
1	Usted	30059201	137916795
2	21 Hungarian Dances, WoO 1: Hungarian Dance No. 5 in G Minor. Allegro (Orch. Schmeli...	39575743	79151486
3	Mientes Tan Bien	6915455	224299945
4	Have You Ever Seen The Rain	61903001	975300588
5	Dream A Little Dream Of Me	157256901	495674374
6	When I Grow Up	231236307	260959663
7	Me Hace Tanto Bien	56694580	187498268
8	What You Want (feat. Total)	13099909	85458315
9	Suavemente	134326707	250550159
10	Emotions	218177	107654866

--Advanced Level

--1.Find the top 3 most-viewed tracks for each artist using window functions.

WITH ranking_artist

AS

(SELECT

artist,

track,

```

SUM(views) as total_view,
DENSE_RANK() OVER(PARTITION BY artist
ORDER BY SUM(views) DESC) as rank

FROM spotify

GROUP BY 1, 2

ORDER BY 1, 3 DESC

)

SELECT * FROM ranking_artist

WHERE rank <= 3

```

Data Output Messages Notifications				
	artist character varying (255)	track character varying (255)	total_view double precision	rank bigint
1	\$NOT	Tell Em	41100657	1
2	\$NOT	Like Me (feat. iann dior)	15803517	2
3	\$NOT	Mean	13563870	3
4	\$uicideboy\$	Paris	175156959	1
5	\$uicideboy\$	For the Last Time	91771038	2
6	\$uicideboy\$	Kill Yourself (Part III)	31674988	3
7	(G)I-DLE	POP/STARS	541864471	1
8	(G)I-DLE	TOMBOY	204797335	2
9	(G)I-DLE	Oh my god	191587399	3
10	*NSYNC	Bye Bye Bye	315874581	1
11	*NSYNC	This I Promise You	252377383	2
12	*NSYNC	It's Gonna Be Me	172368673	3
13	070 Shake	Escapism. - Sped Up	25149399	1
14	070 Shake	Escapism. - Slowed Down	25149399	1
15	070 Shake	Escapism.	25149399	1
16	070 Shake	Guilty Conscience	10148280	2
17	070 Shake	Morrow	2815446	3
18	11:11 Music Group	hola como tale tale vu - 1, 2, 3	9509592	1
19	11:11 Music Group	after dark x sweater weather	1566827	2
20	11:11 Music Group	stargirl interlude (sped up)	1005798	3
21	112	Only You (feat. The Notorious B.I.G. & Mase) - Bad Boy Remix	76971300	1
22	112	Peaches & Cream	28261569	2
Total rows: 1000 of 6808 Query complete 00:00:00.264 Ln 160, Col 1				

--2. Write a query to find tracks where the liveness score is above the average.

```
SELECT
```

```

track,

artist,

liveness

FROM spotify

WHERE liveness > (SELECT AVG(liveness) FROM spotify)

```

Data Output Messages Notifications

	track character varying (255)	artist character varying (255)	liveness double precision
1	Feel Good Inc.	Gorillaz	0.613
2	DARE	Gorillaz	0.298
3	New Gold (feat. Tame Impala and Bootie Brown) - Dom Dolla Remix	Gorillaz	0.325
4	Cracker Island (feat. Thundercat)	Gorillaz	0.325
5	Dirty Harry	Gorillaz	0.672
6	Dani California	Red Hot Chili Peppers	0.346
7	Candy Shop	50 Cent	0.38
8	Just A Lil Bit	50 Cent	0.315
9	Disco Inferno	50 Cent	0.279
10	The Unforgiven (Remastered)	Metallica	0.255
11	One (Remastered)	Metallica	0.42
12	Screaming Suicide	Metallica	0.239
13	Yellow	Coldplay	0.234
14	A Sky Full of Stars	Coldplay	0.209
15	Hymn for the Weekend	Coldplay	0.325
16	My Universe	Coldplay	0.328
17	One More Time	Daft Punk	0.332
18	Harder, Better, Faster, Stronger	Daft Punk	0.358
19	Digital Love	Daft Punk	0.342
20	In the End	Linkin Park	0.209
21	Numb	Linkin Park	0.639
22	Numb / Encore	Linkin Park	0.582

Total rows: 1000 of 6364 Query complete 00:00:00.155 Ln 169, Col 57

--3. Use a WITH clause to calculate the difference between the highest and lowest energy values for tracks in each album.

WITH cte

AS

(SELECT

album,

```
        MAX(energy) as highest_energy,  
        MIN(energy) as lowest_energery  
    FROM spotify  
    GROUP BY 1  
)  
SELECT  
    album,  
    highest_energy - lowest_energery as energy_diff  
FROM cte  
ORDER BY 2 DESC
```

	album	energy_diff
	character varying (255)	double precision
1	White Noise	0.9067500000000001
2	Spotify Singles - Holiday	0.8360000000000001
3	Spotify Singles	0.8232
4	UNDERTALE Soundtrack	0.816
5	Making Mirrors	0.8109000000000001
6	Everytime We Touch (Premium Edition)	0.8049999999999999
7	Unwritten	0.8
8	If I Can Dream: Elvis Presley with the Royal Philharmonic Orchestra	0.787
9	Fallen	0.7649999999999999
10	CeeLo's Magic Moment	0.762
11	Greatest Hits	0.741
12	Safe Haven	0.738
13	Pain Killer	0.734
14	Paranoid (Remaster)	0.7325
15	Nevermind (Remastered)	0.7110000000000001
16	Texas Flood (Legacy Edition)	0.703
17	American Heartbreak	0.6970000000000001
18	For Lovers	0.6888
19	Immortalized (Deluxe Edition)	0.6869999999999999
20	Storytelling	0.6859999999999999
21	A Brief Inquiry Into Online Relationships	0.6819999999999999
22	Baar Baar Dekho (Original Motion Picture Soundtrack)	0.68
Total rows: 1000 of 11854 Query complete 00:00:00.132 Ln 188. Col 1		