

```
DataFrame as df
streaming_history
SELECT *
FROM "streaming_history.csv"
LIMIT 5
      ↑↓ platform
                                                       track_name
                                                                                                      artist_n...
                                                                                                                            album_name
                                                                                                                                                                     \uparrow_{\downarrow}
       0 WebPlayer (websocket RFC6455)
                                                       Halo
                                                                                                      Beyoncé
                                                                                                                            I AM...SASHA FIERCE
          WebPlayer (websocket RFC6455)
                                                                                                                            Chambre 12
                                                       Avenir
                                                                                                      Louane
          WebPlayer (websocket RFC6455)
                                                       Love Me Like You Do - From "Fifty Shades Of...
                                                                                                      Ellie Goulding
                                                                                                                            Love Me Like You Do
         WebPlayer (websocket RFC6455)
                                                       Earned It (Fifty Shades Of Grey) - From The "...
                                                                                                      The Weeknd
                                                                                                                            Earned It (Fifty Shades Of Grey)
         WebPlayer (websocket RFC6455)
                                                       Take Me To Church
                                                                                                                            Take Me To Church
Rows: 5 <u>↓</u>
```

2023\_2024 DataFrame as df1 SELECT \* FROM '2023\_2024.csv' LIMIT 10  $\uparrow_{\downarrow}$ track\_name artist\_name album\_name spotify\_track\_uri 0 ios Wildwood Flower The Carter Family Can The Circle Be Unbroken: Country Music'... spotify:track:6LXh42hEpcVLK spotify:track:0gplL1WMoJ6iYe 1 ios Easy On Me Adele Easy On Me Easy On Me 2 Easy On Me Adele spotify:track:0gplL1WMoJ6iYe OSX 3 Empire State of Mind (Part II) Broken Down Alicia Keys The Element Of Freedom spotify:track:5sra5UY6sD6580 osx champagne problems 4 **Taylor Swift** spotify:track:0sY6ZUTh4yoctl osx evermore 5 osx Rainbow Kacey Musgraves Golden Hour spotify:track:79qxwHypONUt Elgar: Cello Concerto in E Minor, Op. 85: I. Ad... 6 osx Edward Elgar Impressions spotify:track:5pjDwtMPly0cN 7 Il barbiere di Siviglia: Overture (Sinfonia) Gioachino Rossini Rossini: Complete Overtures spotify:track:1chTrqszWQEOP osx 8 Serenade for Strings in E Major, Op. 22, B. 52: ... Antonín Dvořák Dvořák: Serenade for Strings, Czech Suite spotify:track:3sAYxq1986j3yd OSX 9 Violin Concerto in E Minor, Op. 64, MWV O 14... Felix Mendelssohn Mendelssohn: Violin Concerto Symphony No.... spotify:track:4lvo07fh9EyPtPi OSX Rows: 10

```
streaming_history DataFrame as df6
-- Overall Statistics (2013 - 2025)
SELECT
    COUNT(DISTINCT track_name) as unique_tracks,
    COUNT(DISTINCT artist_name) as unique_artists,
    COUNT(DISTINCT album_name) as unique_albums,
    SUM(minutes_played) as total_minutes
FROM 'streaming_history.csv'
index
               ... ↑↓
                        unique_tracks
                                                                  \uparrow_{\downarrow}
                                                                        unique_artists
                                                                                                                     \uparrow_{\downarrow}
                                                                                                                          unique_albums
                     0
                                                               11488
                                                                                                                   4633
Rows:1 ↓
```

```
SELECT

year,
COUNT(DISTINCT track_name) as unique_tracks,
COUNT(DISTINCT artist_name) as unique_artists,
COUNT(DISTINCT album_name) as unique_albums,
SUM(minutes_played) as total_minutes

FROM 'streaming_history.csv'
GROUP BY year
ORDER BY year DESC
```

2025 2024 2023 2022 2021	587 4529 2496 3151 2279	348 1947 1244 1589	
2023 2022	2496 3151	1244 1589	
2022	3151	1589	
2021	2279	4450	
	2270	1152	
2020	1754	952	
2019	922	518	
2018	1	1	
2015	231	186	
2013	1	1	
	2018 2015	2018 1 2015 231	2018     1     1       2015     231     186

```
2023_2024 DataFrame as df3
-- Overall Statistics (2023 + 2024)
   COUNT(DISTINCT track_name) as unique_tracks_2023_2024,
    COUNT(DISTINCT artist_name) as unique_artists_2023_2024,
   COUNT(DISTINCT album_name) as unique_albums_2023_2024,
   SUM(minutes_played) as total_minutes_2023_2024,
   COUNT(DISTINCT genres) as unique_genres_2023_2024
FROM '2023_2024.csv'
         ··· ↑↓ unique_tracks
                                            ••• ↑↓ unique_artists
                                                                                  ··· ↑↓ unique_albums
                                                                                                                     ··· ↑↓ total_minutes
index
                                               6106
                                                                                     2562
                                                                                                                        4336
Rows: 1 <u>↓</u>
```

```
SELECT genres, COUNT(*) as genre_count
FROM '2023_2024.csv'
WHERE year = 2024
GROUP BY genres
ORDER BY genre_count DESC;
                       ••• ↑↓ genres
index
                             0 ['ASMR']
                             1 ['modern rock', 'indie']
                             2 ['indie']
                             3 ['french pop', 'chanson']
                             4 ['pop']
                             5 ['jazz', 'contemporary']
                             6 ['indie rock', 'indie']
                             7 ['chamber pop']
                             8 ['classical guitar']
                             9 ['classic rock', 'soft rock']
                            10 ['indie folk', 'acoustic']
                            11 ['french pop', 'french house']
                            12 ['classical', 'guitar']
                            ['latin folk', 'bolero', 'latin indie', 'latin alternative']
                            14 ['flamenco']
                            15 ['indie folk']
Rows: 989 <u>↓</u>
```

2023\_2024 DataFrame as df1

```
SELECT genres, COUNT(*) as genre_count
FROM '2023_2024.csv'
WHERE year = 2023
GROUP BY genres
ORDER BY genre_count DESC;
```

```
••• ↑↓ genres
                                                                        \uparrow_{\downarrow}
       0 ['french pop', 'chanson']
                                                                        163
       1 ['variété française', 'chanson', 'french pop', 'fr...
                                                                        155
       2 ['pop']
                                                                        138
       3 ['french pop', 'french house']
                                                                        127
                                                                        105
       4 ['bedroom pop']
       5 ['french pop', 'variété française', 'chanson']
                                                                        104
                                                                        103
       6 ['chamber pop']
       7 ['indie rock', 'folk']
                                                                         99
       8 ['ASMR']
                                                                         88
       9 ['christian folk', 'folk pop', 'indie folk']
                                                                         81
      10 ['indie folk']
                                                                         81
      11 ['soft rock']
                                                                         79
      12 ['classical', 'guitar']
                                                                         76
      13 ['classic rock', 'rock', 'glam rock']
                                                                         69
     14 ['indie']
                                                                         68
      15 ['modern rock', 'indie']
                                                                         66
Rows: 793 <u>↓</u>
2023_2024 DataFrame as df5
-- Per year
SELECT
```

```
COUNT(DISTINCT track_name) as unique_tracks,
    COUNT(DISTINCT artist_name) as unique_artists,
    COUNT(DISTINCT album_name) as unique_albums,
    SUM(minutes_played) as total_minutes,
   COUNT(DISTINCT genres) as unique_genres
FROM '2023_2024.csv'
GROUP BY year
 ... ↑↓
          ··· ↑↓ unique... ··· ↑↓
                                   unique_... ··· ↑↓ unique... ··· ↑↓ total_minut... ··· ↑↓
                                                                                            unique... ↑↓
      0
           2023
                            2496
                                               1244
                                                                1880
                                                                         21221.2583333333
                                                                                                       793
           2024
                             4529
                                               1947
                                                                3240
                                                                         29665.3079333333
                                                                                                       989
      1
Rows: 2 <u>↓</u>
```

```
2023_2024 DataFrame as d
-- Top Tracks by Minutes Played (2024)
SELECT
   track_name,
    artist name,
    SUM(minutes_played) as total_minutes
FROM '2023_2024.csv
WHERE year = 2024
AND artist_name NOT LIKE '%ASMR%'
GROUP BY track_name, artist_name
ORDER BY total_minutes DESC
LIMIT 11;
  ··· ↑ track_name
                                   ··· ↑↓ artist_name
                                                                 ••• ↑↓ total_... ••• ↑↓
      0 Familiar
                                                                            93.0717166667
                                            Agnes Obel
      1 Big Jet Plane
                                             Angus & Julia Stone
                                                                            87.6675666667
                                            Tamino
                                                                                   82.7734
      2 Cigar
                                            Agnes Obel
      3 Broken Sleep
                                                                                    79.924
     4 Walk On the Wild Side
                                                                            77.8795666667
                                            Lou Reed
     5 The Leanover
                                            Life Without Buildings
                                                                                  73.67085
      6 Indigo Night
                                             Tamino
                                                                            73.6642333333
     7 The First Disciple
                                                                            73.5688833333
                                             Tamino
     8 Riverside
                                             Agnes Obel
                                                                                  72.89425
                                            Gregory Alan Isakov
     9 Big Black Car
                                                                            68.5899333333
     10 Don't Go Breaking My Heart
                                             Elton John
                                                                            65.4106833333
Rows: 11 ↓
```

```
2023_2024 DataFrame as

-- Top Tracks by Number of times Played (2024)

SELECT
track_name,
```

```
••• ↑↓ track_name
                                       artist_name
                                                                        time... ···
                                                                                     \uparrow_{\downarrow}
      0 Familiar
                                        Agnes Obel
                                                                                     29
      1 Big Jet Plane
                                        Angus & Julia Stone
                                                                                     24
      2 Walk On the Wild Side
                                        Lou Reed
                                                                                     24
      3 Cigar
                                        Tamino
                                                                                     24
                                                                                     23
      4 Riverside
                                        Agnes Obel
      5 It's Called: Freefall
                                        Rainbow Kitten Surprise
                                                                                     22
      6 3 Nights
                                        Dominic Fike
                                                                                     22
      7 Indigo Night
                                        Tamino
                                                                                     21
      8 Big Black Car
                                       Gregory Alan Isakov
                                                                                     21
      9 Someone New
                                        Hozier
                                                                                     21
     10 je sais pas danser
                                        Pomme
                                                                                     20
Rows: 11 <u>↓</u>
2023_2024 DataFrame as
-- Top Tracks by Minutes Played (2023)
SELECT
    track_name,
    artist_name,
    SUM(minutes_played) as total_minutes
FROM '2023_2024.csv
WHERE vear = 2023
AND artist_name NOT LIKE '%ASMR%'
GROUP BY track_name, artist_name
ORDER BY total_minutes DESC
LIMIT 11;
  ••• 1 track_name
                                         artist_n... ↔ ↑↓
                                                             total_mi... ··· ↑↓
      0 Soldier, Poet, King
                                         The Oh Hellos
                                                               110.0782833333
      1 Riverside
                                                               108.3734666667
                                         Agnes Obel
      2 Wasting My Young Years
                                         London Grammar
                                                               100.7039166667
      3 Ya Sîdî
                                         Orange Blossom
                                                                       98.3157
      4 Familiar
                                         Agnes Obel
                                                                      93.16015
      5 Corps
                                         Yseult
                                                                92.7110833333
                                                                82.4452666667
      6 grandiose
                                         Pomme
                                                                82.3009833333
      7 Où va le monde
                                         La Femme
      8 Indigo Night
                                                                77.0574666667
                                         Tamino
      9 Cherry Wine - Live
                                                                76.0467166667
                                         Hozier
     10 Mystery of Love
                                         Sufjan Stevens
                                                                75.3799666667
Rows: 11 <u>↓</u>
```

artist name.

FROM '2023\_2024.csv'
WHERE year = 2024

ORDER BY COUNT(\*) DESC

LIMIT 11;

COUNT(\*) as times\_played

AND artist\_name NOT LIKE '%ASMR%'
GROUP BY track\_name, artist\_name

```
-- Top Tracks by Number of times Played (2023)

SELECT
    track_name,
    artist_name,
    COUNT(*) as times_played

FROM '2023_2024.csv'

WHERE year = 2023

AND artist_name NOT LIKE '%ASMR%'

GROUP BY track_name, artist_name

ORDER BY COUNT(*) DESC

LIMIT 11;
```

••• ↑↓	, track_name	artist_na ↑↓	time ···	$\uparrow_{\psi}$
0	Soldier, Poet, King	The Oh Hellos		52
1	Wasting My Young Years	London Grammar		32
2	Riverside	Agnes Obel		30
3	grandiose	Pomme		27
4	Familiar	Agnes Obel		24
5	Y tu te vas	La Femme		24
6	Strawberry Blond	Mitski		24
7	Mystery of Love	Sufjan Stevens		23
8	Corps	Yseult		22
9	Bloom - Bonus Track	The Paper Kites		22
10	Ya Sîdî	Orange Blossom		21

```
2023_2024 DataFrame as
-- Daily Listening Pattern
SELECT
   date.
   SUM(minutes_played) as daily_minutes
FROM '2023_2024.csv'
WHERE year = 2024
GROUP BY date
ORDER BY date;
 ··· ↑↓ date
                              ··· ↑↓ daily_mi... ··· ↑↓
     0 2024-01-01T00:00:00.000
                                          28.3629333333
     1 2024-01-02T00:00:00.000
                                                 91.2194
     2 2024-01-03T00:00:00.000
                                          79.8654833333
     3 2024-01-04T00:00:00.000
                                          16.2623666667
                                          52.1103666667
     4 2024-01-05T00:00:00.000
     5 2024-01-06T00:00:00.000
                                              122.46005
     6 2024-01-07T00:00:00.000
                                                73.9454
     7 2024-01-08T00:00:00.000
                                          52.8348166667
     8 2024-01-09T00:00:00.000
                                         262.8556333333
     9 2024-01-10T00:00:00.000
                                          36.2059166667
    10 2024-01-11T00:00:00.000
                                                 31.5152
    11 2024-01-12T00:00:00.000
                                          40.5464333333
    12 2024-01-13T00:00:00.000
                                                50.81625
    13 2024-01-14T00:00:00.000
                                                65.99935
    14 2024-01-15T00:00:00.000
                                                54.3399
    15 2024-01-16T00:00:00.000
                                          44.8904166667
Rows: 347 <u>↓</u>
```

```
streaming_history DataFrame as
-- Number of days listened to music + percentage
SELECT
    COUNT(DISTINCT date) AS days_listened,
    365 AS total_days_in_year,
   COUNT(DISTINCT date) * 1.0 / 365 * 100 AS fraction_of_days_listened
FROM 'streaming_history.csv'
GROUP BY year
ORDER BY year ASC
```

•••	↑↓	↑↓	days_l ··· ↑↓	total_days_in ··· ↑↓	fraction_of_days_listened $\cdots$ $\uparrow_{\downarrow}$
	0	2013	1	365	0.2739726027
	1	2015	21	365	5.7534246575
	2	2018	1	365	0.2739726027
	3	2019	205	365	56.1643835616
	4	2020	288	365	78.904109589
	5	2021	328	365	89.8630136986
	6	2022	341	365	93.4246575342
	7	2023	331	365	90.6849315068
	8	2024	347	365	95.0684931507
	9	2025	14	365	3.8356164384

Rows: 10 <u>↓</u>

```
streaming_history DataFrame as
-- Days I discovered my favorite artists of all times (2017-2025)
WITH artist_play_counts AS (
    SELECT artist_name, COUNT(*) AS play_count
    FROM 'streaming_history.csv'
    GROUP BY artist_name
    ORDER BY play_count DESC
    LIMIT 11
),
first_listen_dates AS (
    SELECT artist_name, MIN(date) AS first_listen_date
    FROM 'streaming_history.csv'
    GROUP BY artist_name
)
SELECT
    a.artist_name,
    f.first_listen_date,
    a.play_count
FROM artist_play_counts a
JOIN first_listen_dates f ON a.artist_name = f.artist_name
ORDER BY a.play_count DESC;
  \cdots \uparrow_{\downarrow} artist_na... \cdots \uparrow_{\downarrow} first_listen_date
                                                                  ••• ↑↓
      0 ABBA
                              2019-05-20T00:00:00.000
                                                                       662
                              2019-06-08T00:00:00.000
                                                                       590
      1 Angèle
                              2020-08-04T00:00:00.000
                                                                       562
      2 Pomme
                              2019-03-22T00:00:00.000
                                                                       545
      3 Imagine Dragons
      4 Rihanna
                              2015-04-02T00:00:00.000
                                                                       465
                              2015-10-17T00:00:00.000
      5 Queen
                                                                       460
      6 René Aubry
                              2020-07-16T00:00:00.000
                                                                       458
      7 Tamino
                              2020-03-24T00:00:00.000
                                                                       413
                              2020-03-23T00:00:00.000
                                                                       363
      8 Agnes Obel
      9 Hozier
                              2015-04-02T00:00:00.000
                                                                       348
                              2019-05-15T00:00:00.000
     10 Olivia Ruiz
                                                                       314
Rows: 11 <u>↓</u>
```

```
2023_2024 DataFrame as

Write SQL code or tell our AI what to do
```

```
2023_2024 DataFrame as

-- Love-Hate Relationship Songs 2024

-- Temporary table to store additional details

CREATE TEMPORARY TABLE top_tracks_details AS

SELECT

track_name,
artist_name,
album_name,
COUNT(*) as total_plays,
SUM(CASE WHEN skipped THEN 1 ELSE 0 END) as skip_count,
SUM(minutes_played) as total_minutes

FROM '2023_2024.csv'

WHERE

year = 2024

AND artist_name NOT LIKE '%ASMR%'

GROUP BY track_name, artist_name, album_name;
```

```
-- Select the top 100 tracks based on play count and join with the temporary table to get the final result

SELECT

d.track_name,
d.artist_name,
d.album_name,
d.total_plays,
d.skip_count,
d.total_minutes

FROM top_tracks_details d

ORDER BY d.total_plays DESC, d.skip_count DESC

LIMIT 101;
```

••• ↑↓	track_name ··· ↑↓	artist_name ··· ↑↓	album_name $\cdots$ $\uparrow_{\psi}$	tot ••• ↑↓	s ••• ↑
0	Familiar	Agnes Obel	Citizen of Glass	29	(
1	Cigar	Tamino	Amir	24	(
2	Walk On the Wild Side	Lou Reed	Transformer	24	(
3	Big Jet Plane	Angus & Julia Stone	Down The Way	24	(
4	Riverside	Agnes Obel	Philharmonics	23	1
5	It's Called: Freefall	Rainbow Kitten Surprise	How to: Friend, Love, Freefall	22	10
6	3 Nights	Dominic Fike	Don't Forget About Me, Demos	22	
7	Someone New	Hozier	Hozier	21	(
8	Indigo Night	Tamino	Amir	21	
9	Big Black Car	Gregory Alan Isakov	This Empty Northern Hemisphere	21	(
10	Higher Ground - Remastered 2003	Red Hot Chili Peppers	Mother's Milk	20	(
11	Le Tournie	NOUR	Après l'orage	20	
12	Wasting My Young Years	London Grammar	If You Wait	20	
13	Take Me To Church	Hozier	Hozier	19	
14	Broken Sleep	Agnes Obel	Myopia	19	
15	Back To Black	Amy Winehouse	Back To Black	19	;

```
2023_2024 DataFrame as
-- Love-Hate Relationship Songs 2023
-- Temporary table to store additional details
CREATE TEMPORARY TABLE top_tracks_details AS
SELECT
   track_name,
   artist_name,
   album_name,
   COUNT(*) as total_plays,
   SUM(CASE WHEN skipped THEN 1 ELSE 0 END) as skip_count,
   SUM(minutes_played) as total_minutes
FROM '2023_2024.csv'
WHERE
   year = 2023
GROUP BY track_name, artist_name, album_name;
-- Select the top 100 tracks based on play count and join with the temporary table to get the final result
SELECT
   d.track_name,
   d.artist_name,
   d.album_name,
   d.total_plays,
   d.skip_count,
   d.total_minutes
FROM top_tracks_details d
ORDER BY d.total_plays DESC, d.skip_count DESC
LIMIT 101;
```

Rows: 101 <u>↓</u>

... † track\_name ... † artist\_name ... † album\_name ... † tot... ... † s...