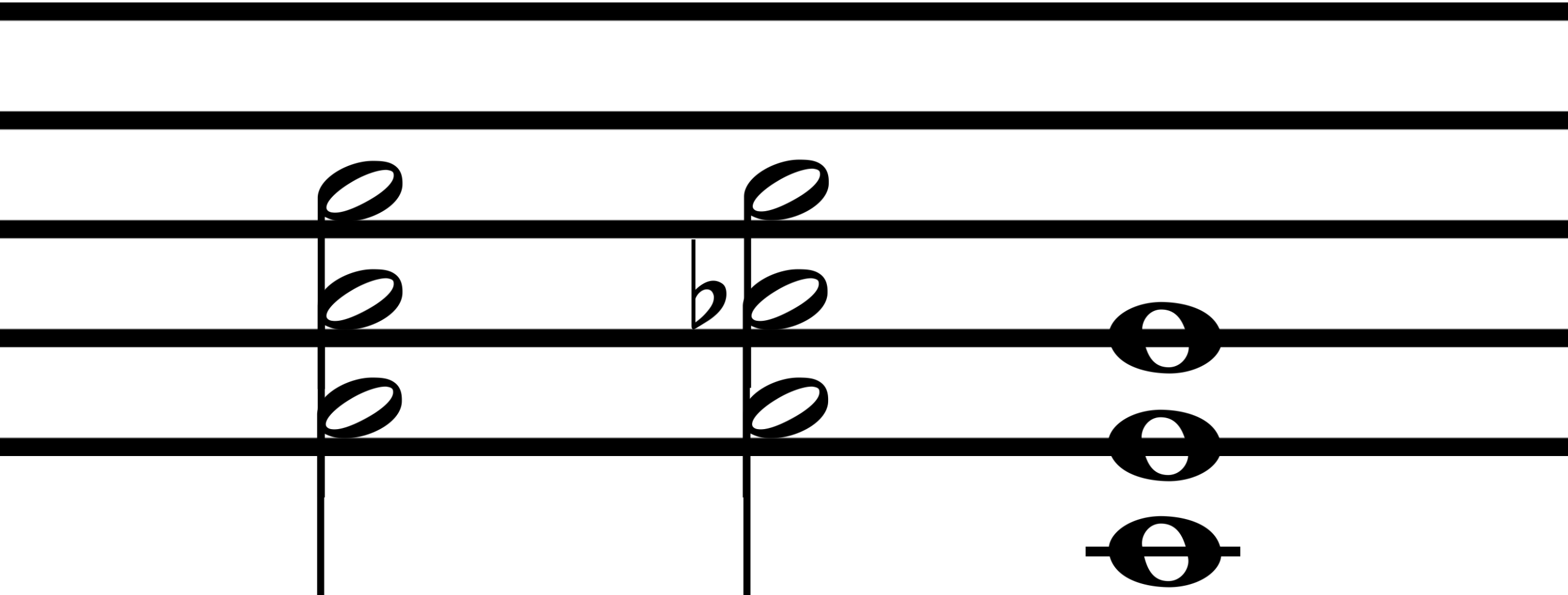
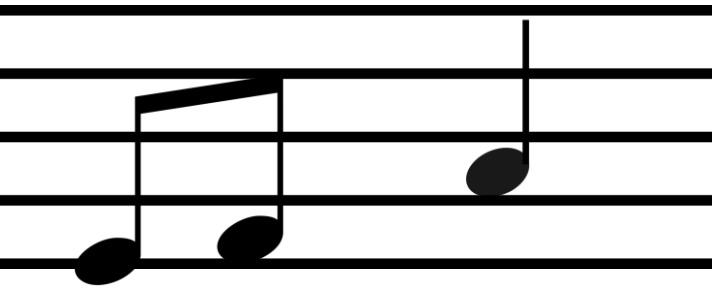
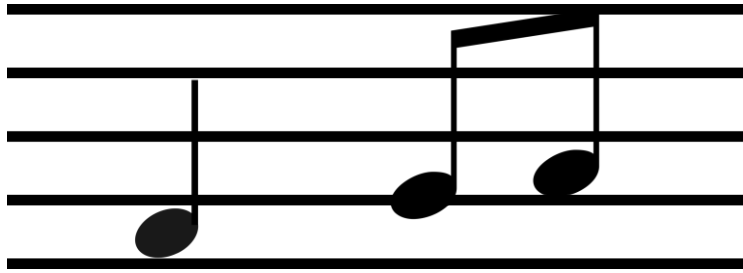
Writing a Hit Song on Spotify





How do you measure what a hit is?



Streams

1	Beautiful Things Benson Boone	41,483,503	Beautiful Things		3:00
2 ▲	TEXAS HOLD 'EM E Beyoncé	36,879,384	TEXAS HOLD 'EM		3:56
3 ▲	CARNIVAL E ¥$, Kanye West, Ty Dolla $ign, Rich The Kid, ...	34,127,981	VULTURES 1		4:24
4 ▲	Cruel Summer Taylor Swift	33,526,124	Lover	✓	2:58
5 ▼	greedy E Tate McRae	33,039,462	greedy		2:12

Song/Artist

Album

There are other measures....

Billboard Hot 100™

1 ↑
Texas Hold 'Em
Beyonce

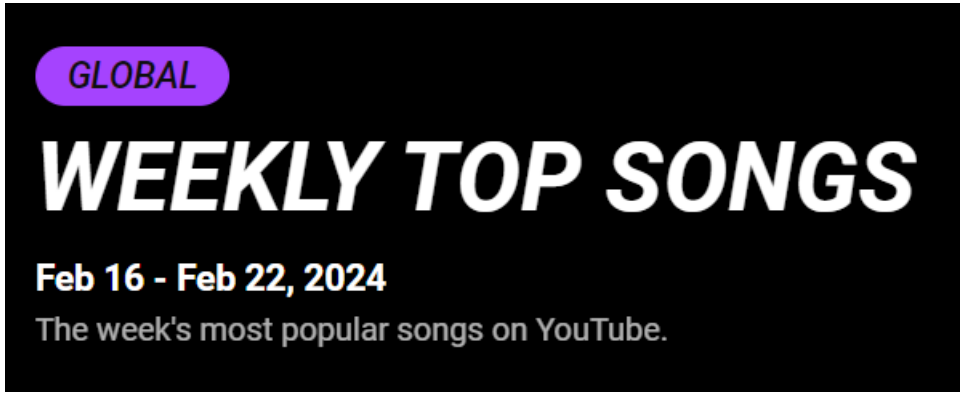
LAST WEEK	WEEKS AT NO. 1	WEEKS ON CHART
2	1	2

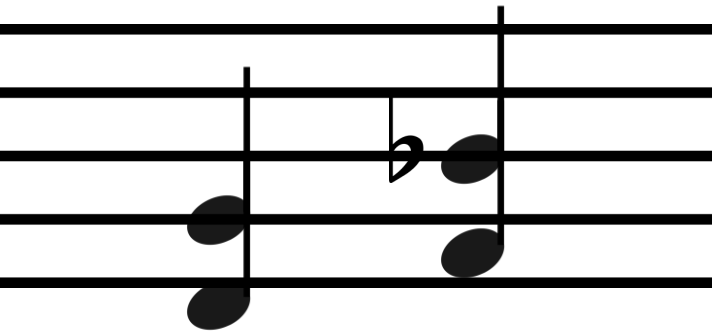
2 ↓
Lovin On Me
Jack Harlow

LAST WEEK	PEAK POSITION	WEEKS ON CHART
1	1	15

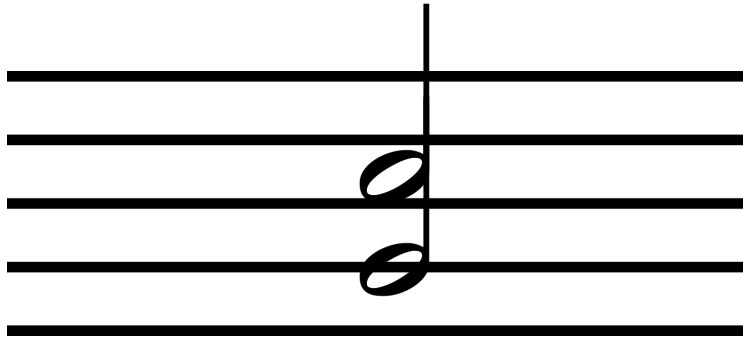
3 ↑
Lose Control
Teddy Swims

LAST WEEK	PEAK POSITION	WEEKS ON CHART
5	2	28





How do you write a hit?



Writing a hit song involves choosing:

Lyrics

Keys

Song length

Instrumentation

Chords

Harmonies

Melody

Album art

BPM

Our Dataset

Most Streamed Spotify Songs 2023

- 24 fields
- Data collected using Spotify API

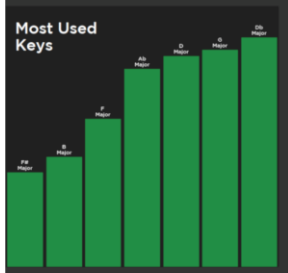
Columns such as:

- Artist(s) name(s)
- Song name
- Streams
- Key
- Bpm
- Danceability

The Theory of Spotify♪

Keys

Writing a song often begins with choosing a key, which serves as the tonal center for the song.
On the right, you will find an interactive circle of fifths. Clicking a key will allow you to filter the data to songs in that key.

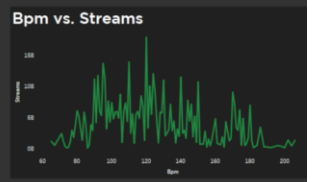


Tempo

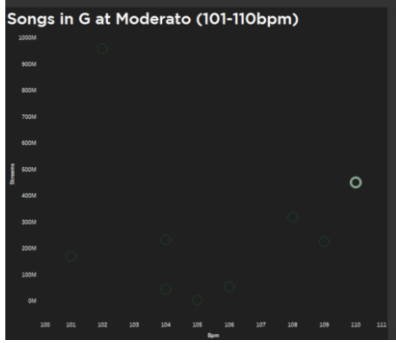
Tempo Markers

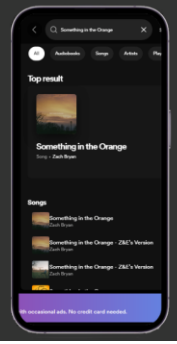
- Adagio (80bpm or below)
- Andante (81-100bpm)
- Moderato (101-110bpm)
- Allegro Moderato (111-120bpm)
- Allegro (121 - 160bpm)
- Presto (161 bpm or above)

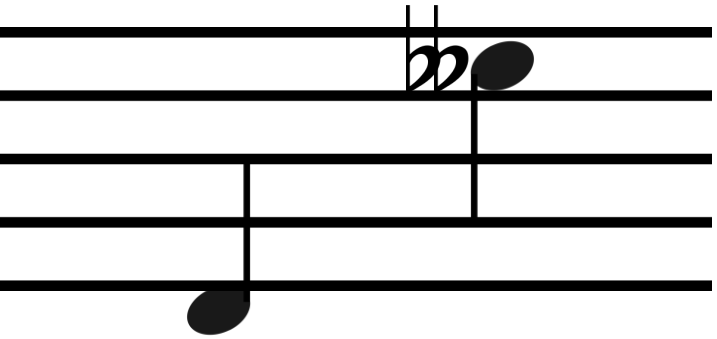
Choosing the song's tempo is another key aspect of songwriting. Use the above tool to filter the data to songs within the selected tempo range.



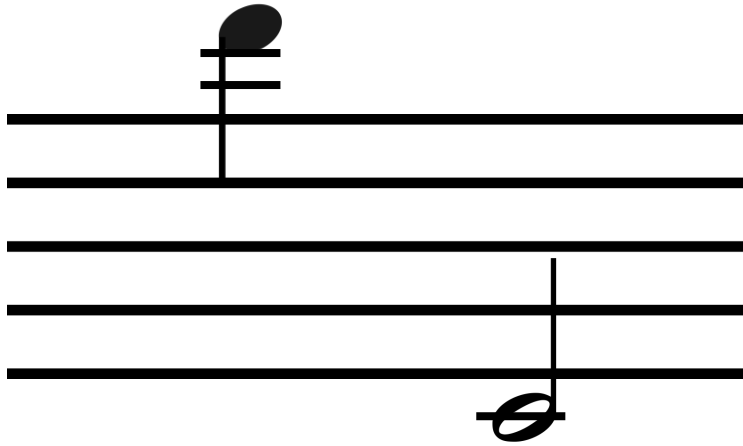
Results







Issues with the dataset



1) Incorrect keys
2) Key names
3) Incorrect tempos
4) Accented letters corrupt cells
5) Missing values

Blinding Lights

The Weeknd

Actual key: c min

iv – i – III – VII – VII4/2 III6

Key in the data: C# maj

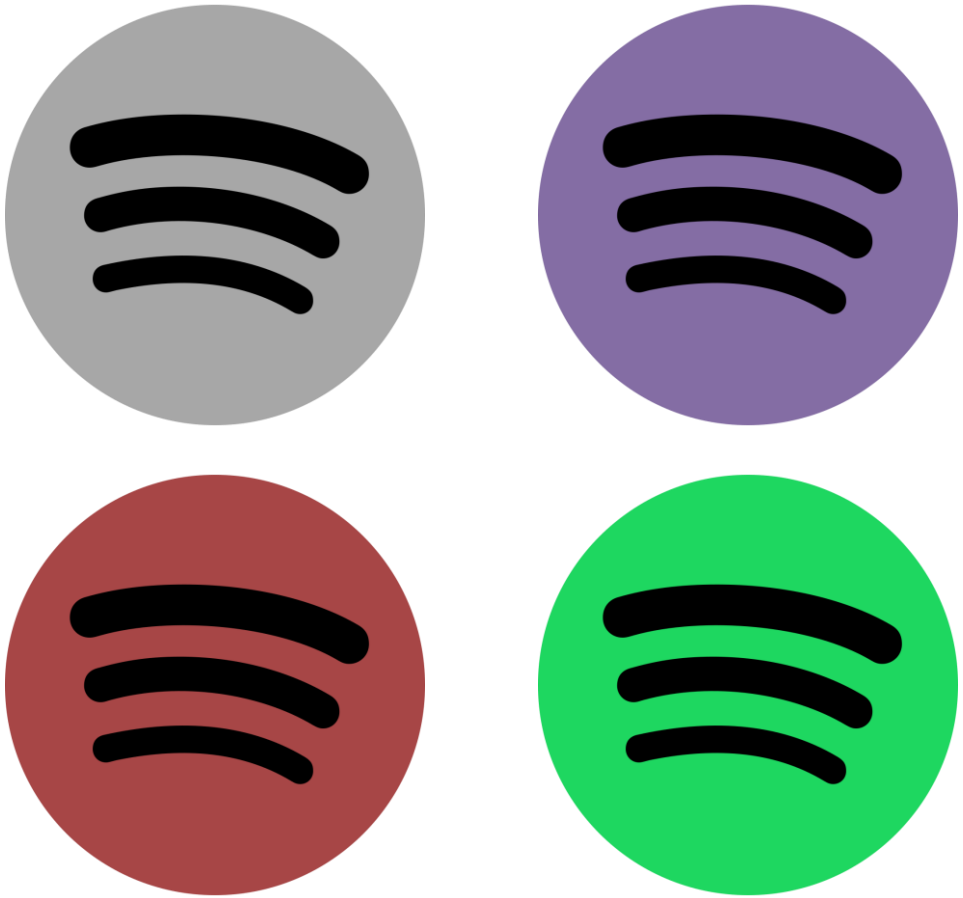
IV – I – iii – vii^{o} – vii^{ø}4/2 iii6

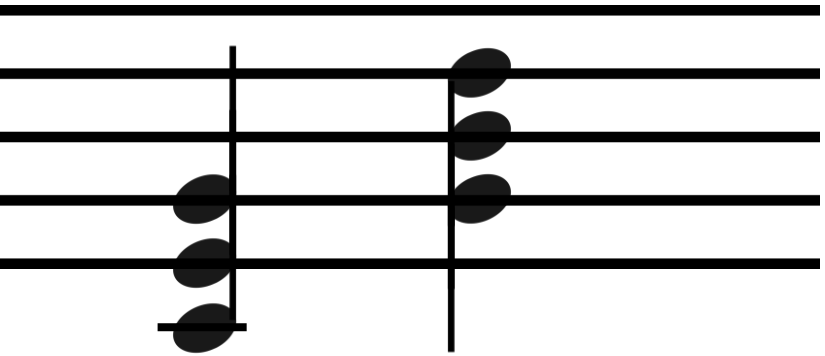
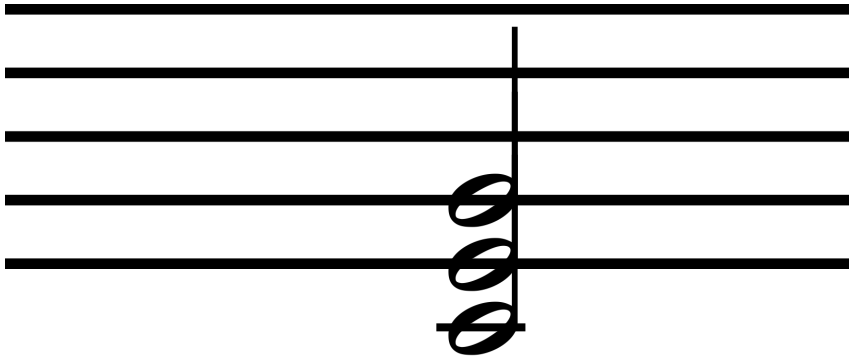
Further Analyses

Although the data was useful in conducting simple theory analyses, there are other elements we would've liked to see:

- Song length
- Chord progression
- Time signature
- Genre

Many of these would require very sophisticated algorithms, however





Conclusion