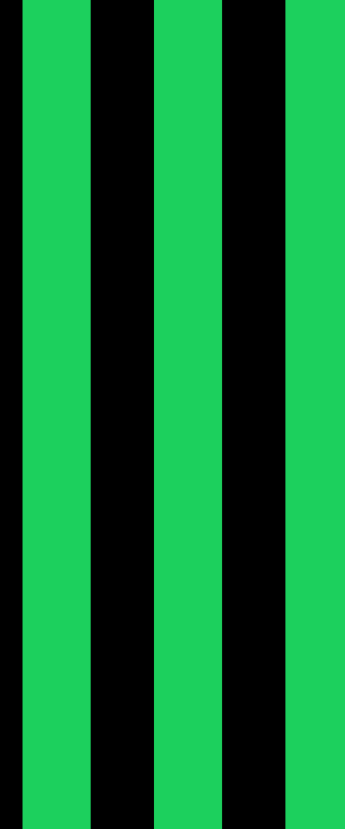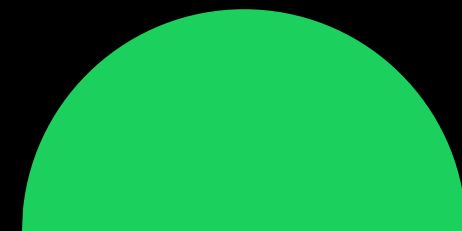# Spotify® Analytics

Group One:

Jimmy Cowden, Hayden Jackson,   Dianna Rivera
Chase Scarboro, Alysa Schoenfelder

Introduction to Dataset

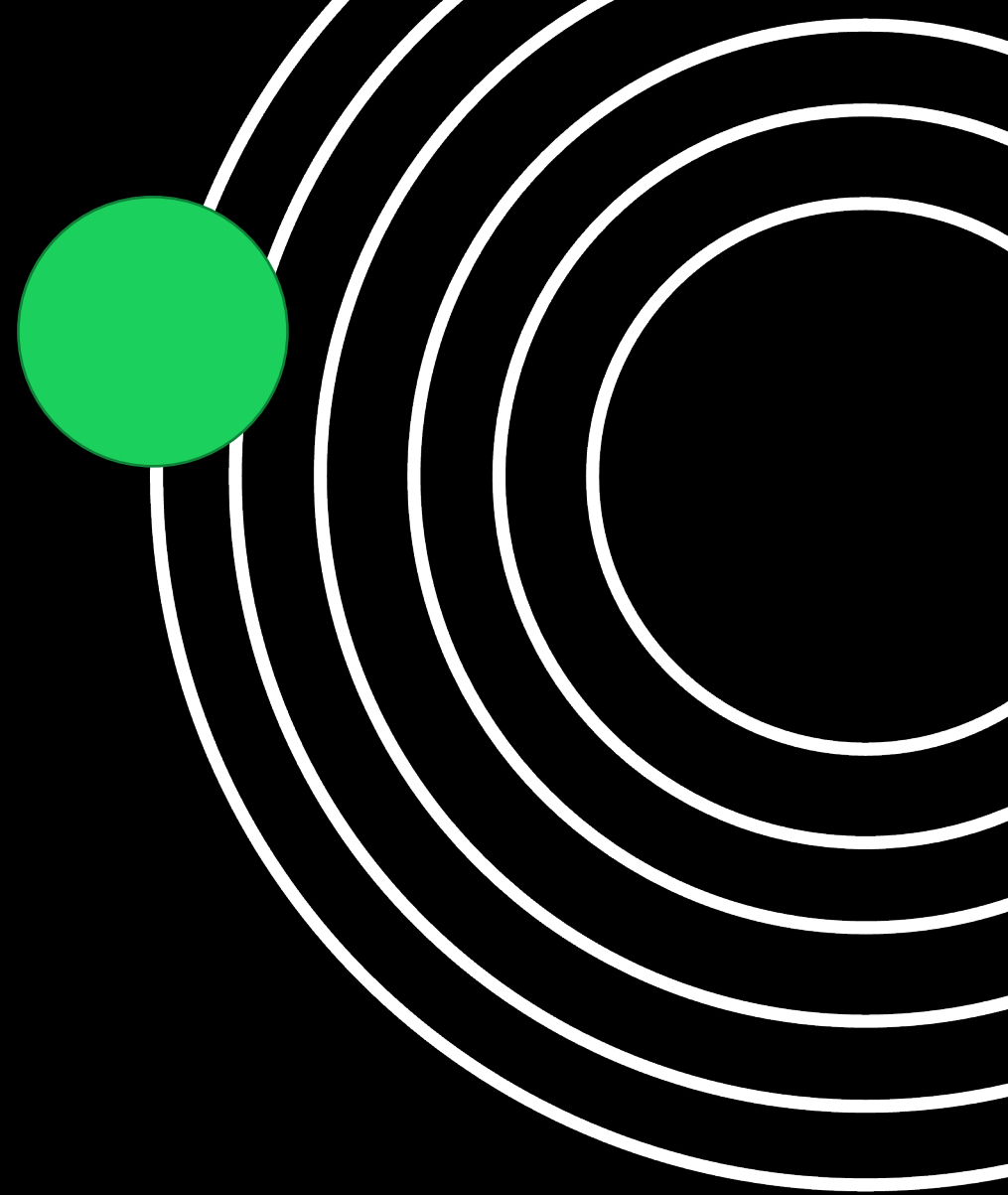1,000,000 Songs

 19 Attributes

2000 - 2010

Popularity Score Index:

- 0-100

- Most impacted by recent stream count

  - Save Rate

  - Skip Rate

  - Share Rate

  - No. of Playlists

Source: https://www.kaggle.com/datasets/amitanshjoshi/spotify-1million-tracks

Cleaned Data

	artist_name	track_name	popularity	year	genre	danceability	energy	loudness	speechiness	acousticness	instrumentalness	tempo	length
0	Jason Mraz	I Won't Give Up	68	2012	acoustic	0.483	0.303	-10.058	0.0429	0.6940	0.000000	133.406	4.002767
1	Jason Mraz	93 Million Miles	50	2012	acoustic	0.572	0.454	-10.286	0.0258	0.4770	0.000014	140.182	3.606450
2	Joshua Hyslop	Do Not Let Me Go	57	2012	acoustic	0.409	0.234	-13.711	0.0323	0.3380	0.000050	139.832	2.649333
3	Boyce Avenue	Fast Car	58	2012	acoustic	0.392	0.251	-9.845	0.0363	0.8070	0.000000	204.961	5.071550
4	Andrew Belle	Sky's Still Blue	54	2012	acoustic	0.430	0.791	-5.419	0.0302	0.0726	0.019300	171.864	4.072000
...	...	...	...	...	...	...	...	...	...	...	...	...	...
1159759	Nicola Conte	Black Spirits	4	2011	trip-hop	0.373	0.742	-6.453	0.0736	0.3250	0.000141	107.951	5.733550

Questions

one

What is the relationship with genre and popularity?

two

What is the relationship between average popularity and release date?

Do any attributes effect a songs popularity?

three

Do specific attributes affect a songs popularity score?

Question One:

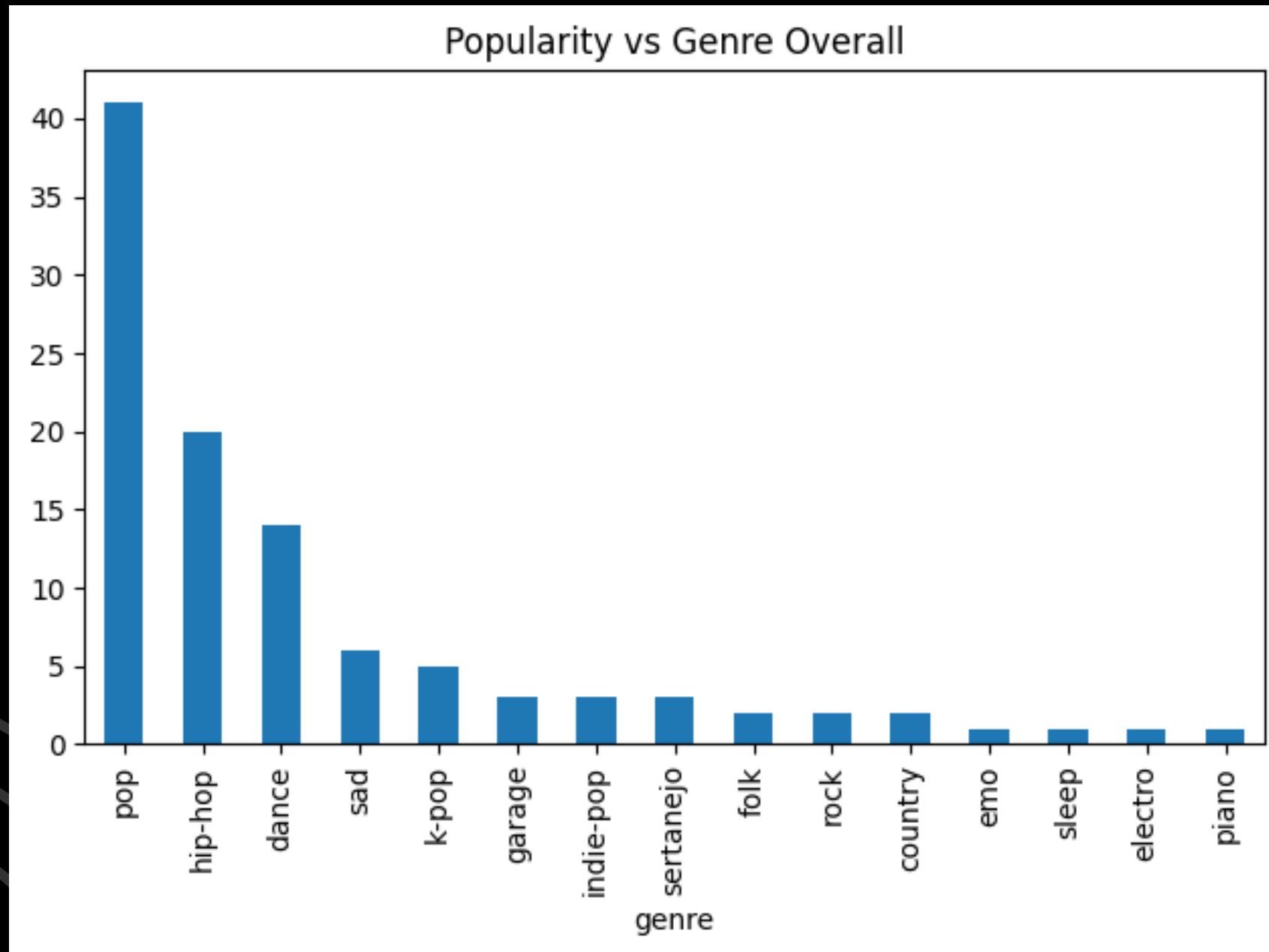## What is the relationship between genre and popularity?
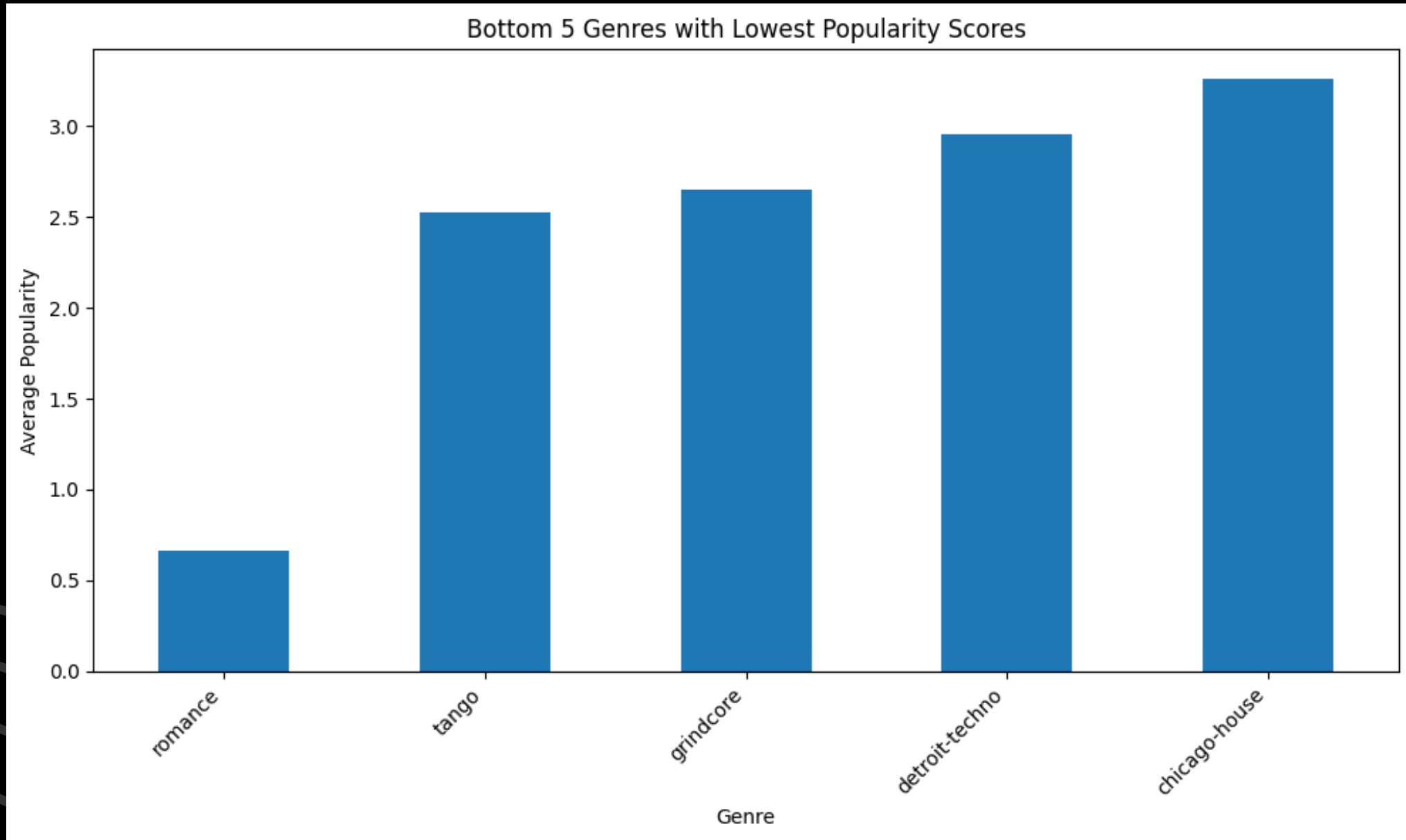
What are the most popular genres?

What are the least popular genres?

Popularity vs Genre Overall
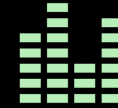
Bottom 5 Genres with Lowest Popularity Scores

Question Two:

What is the average popularity score relative to a songs release date?

What is the average popularity score for songs with a score of 85 or above relative to its release date ?
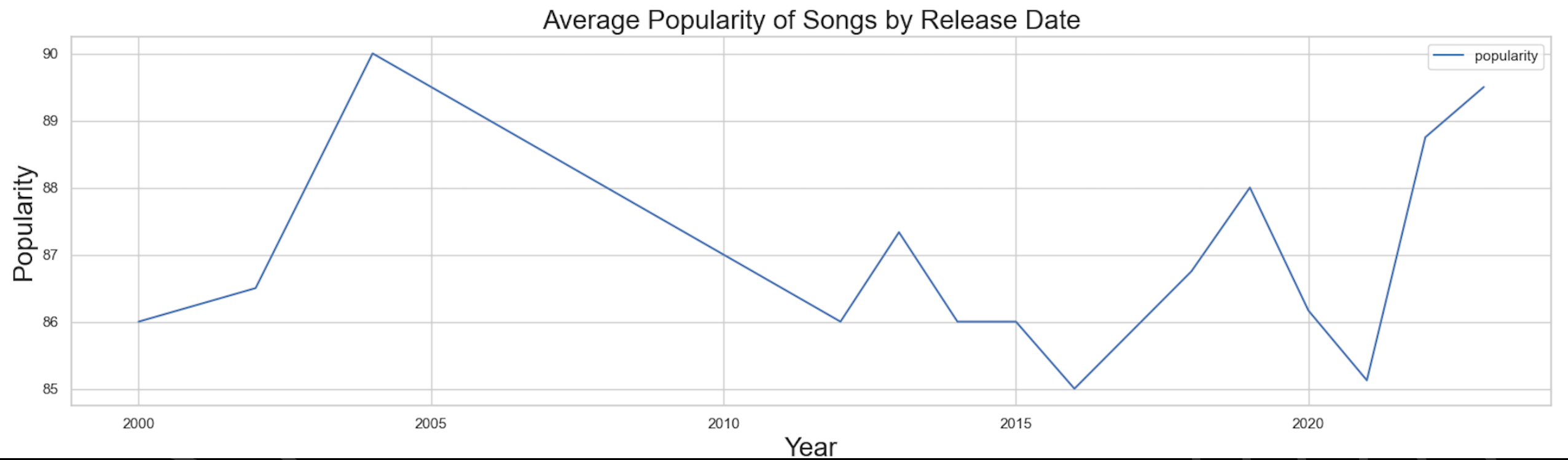
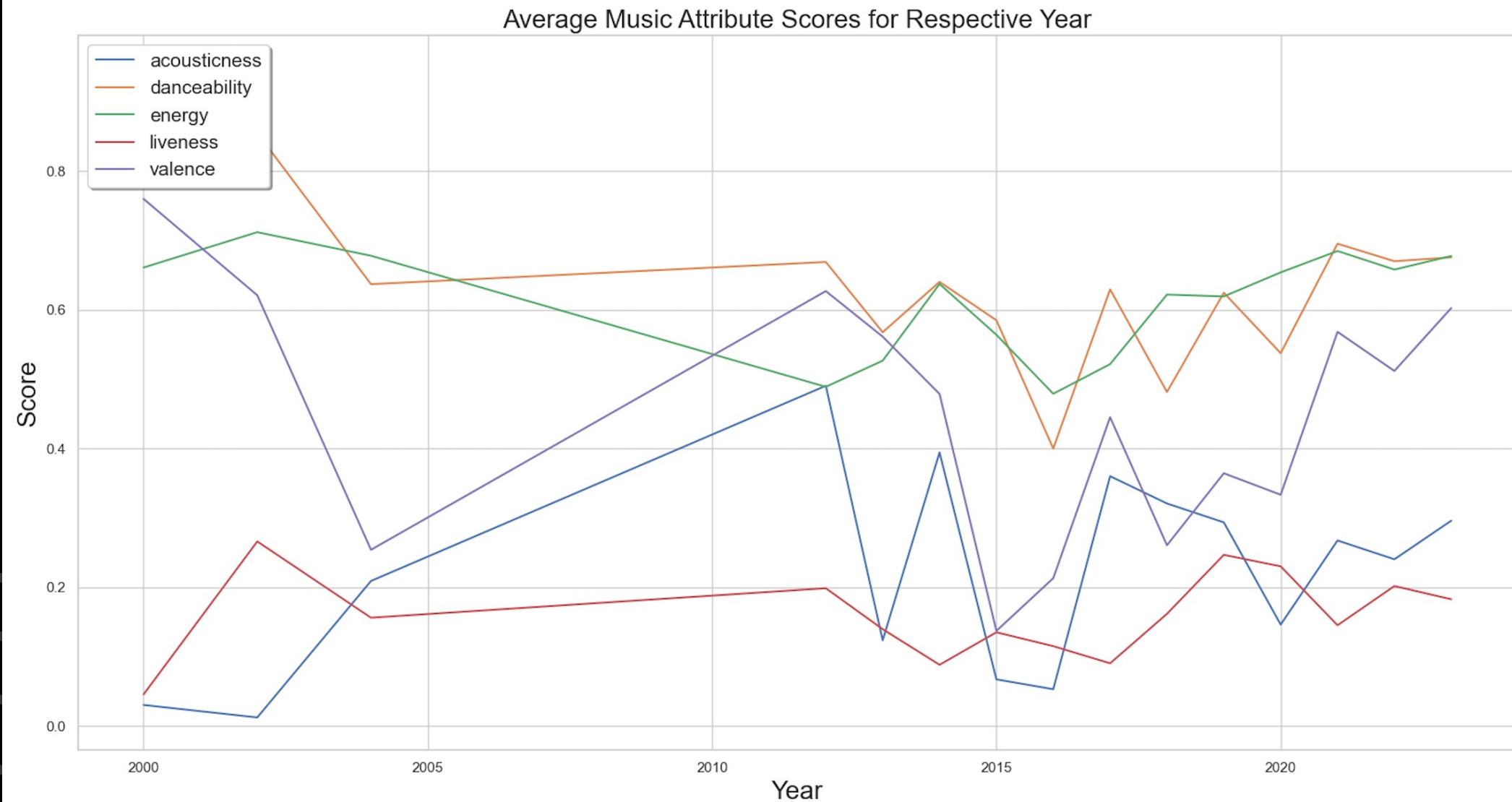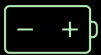Exploring the average music attribute score per respective year

Q2.

Average Popularity of Songs by Release Date

Q2.

Average Popularity of Songs by Release Date

Q2.

Average Music Attribute Scores for Respective Year
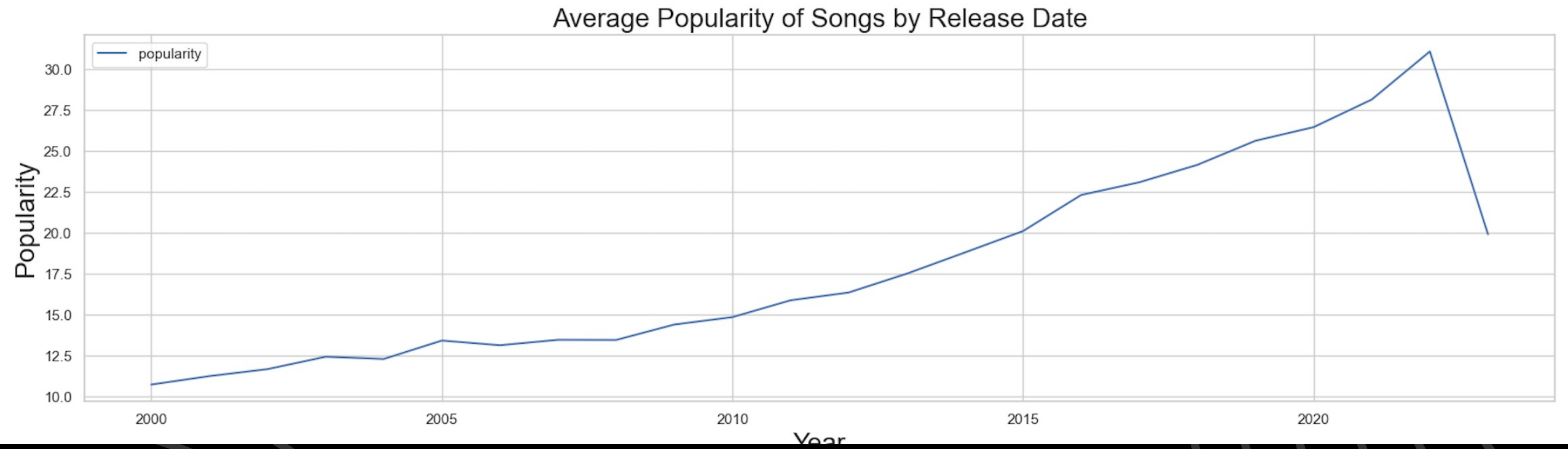
Question 3:

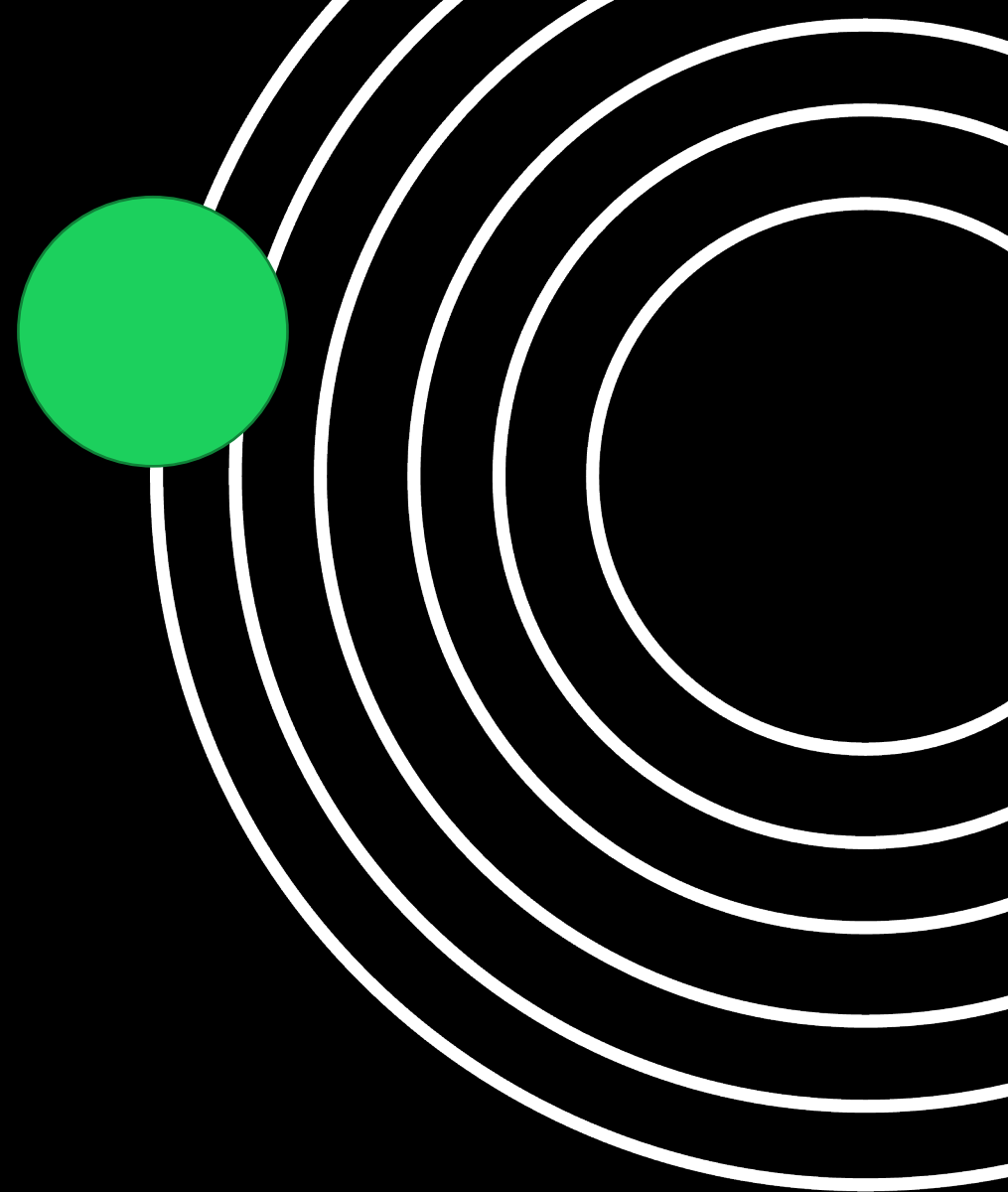Popularity Score vs. Danceability

Popularity Score vs. Energy

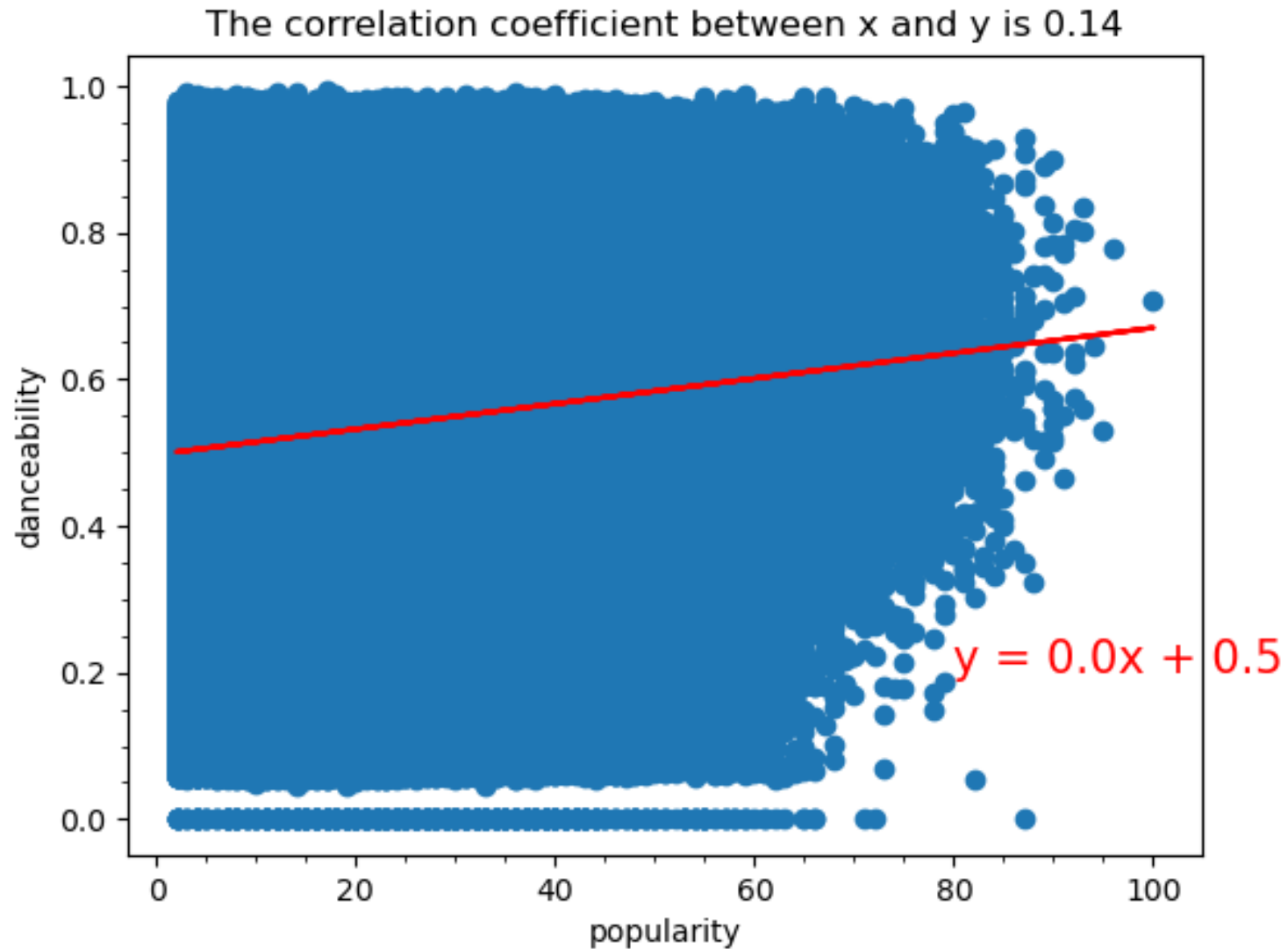Popularity Score vs. "Instrumentalness"

Popularity Score vs. Liveness
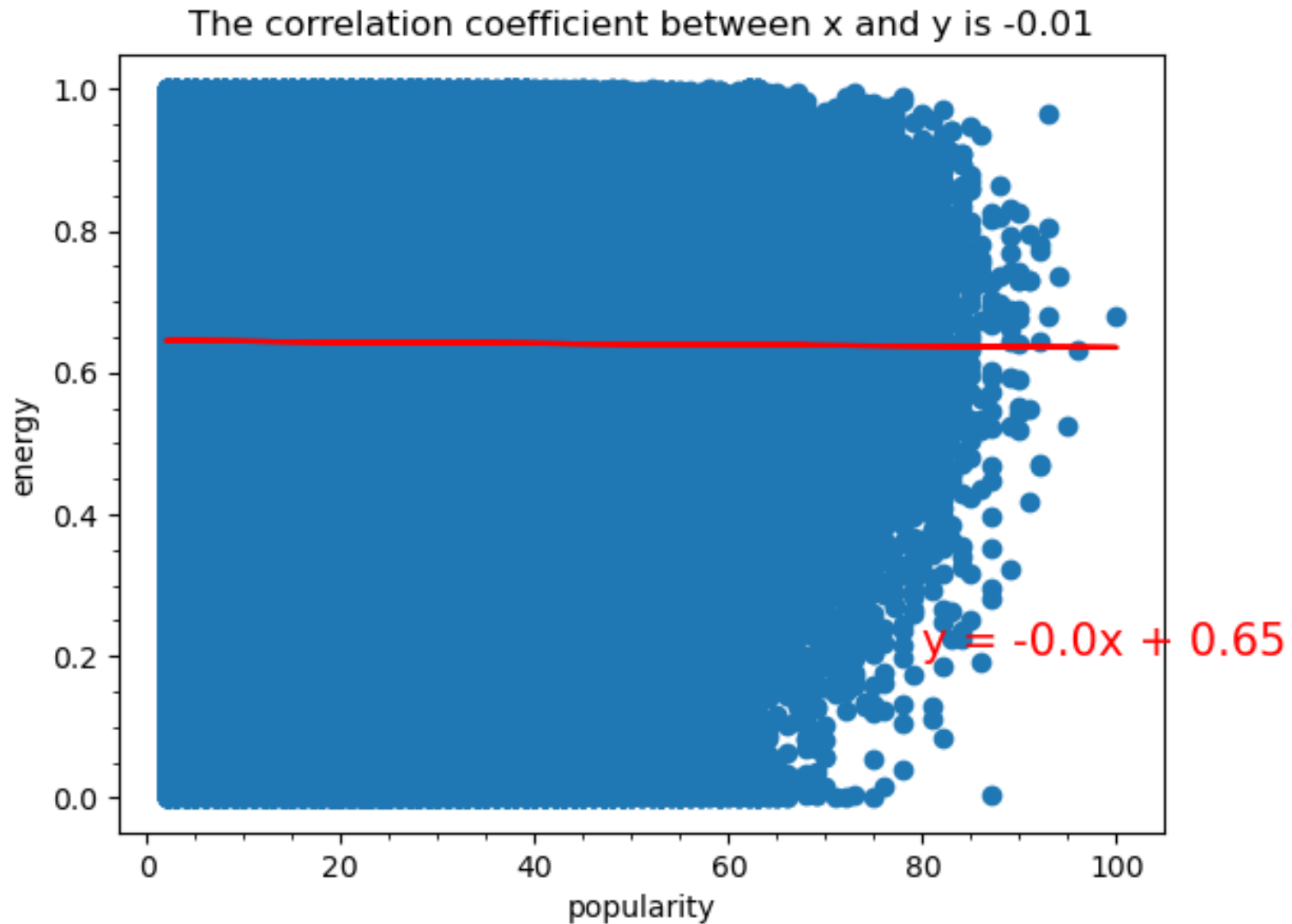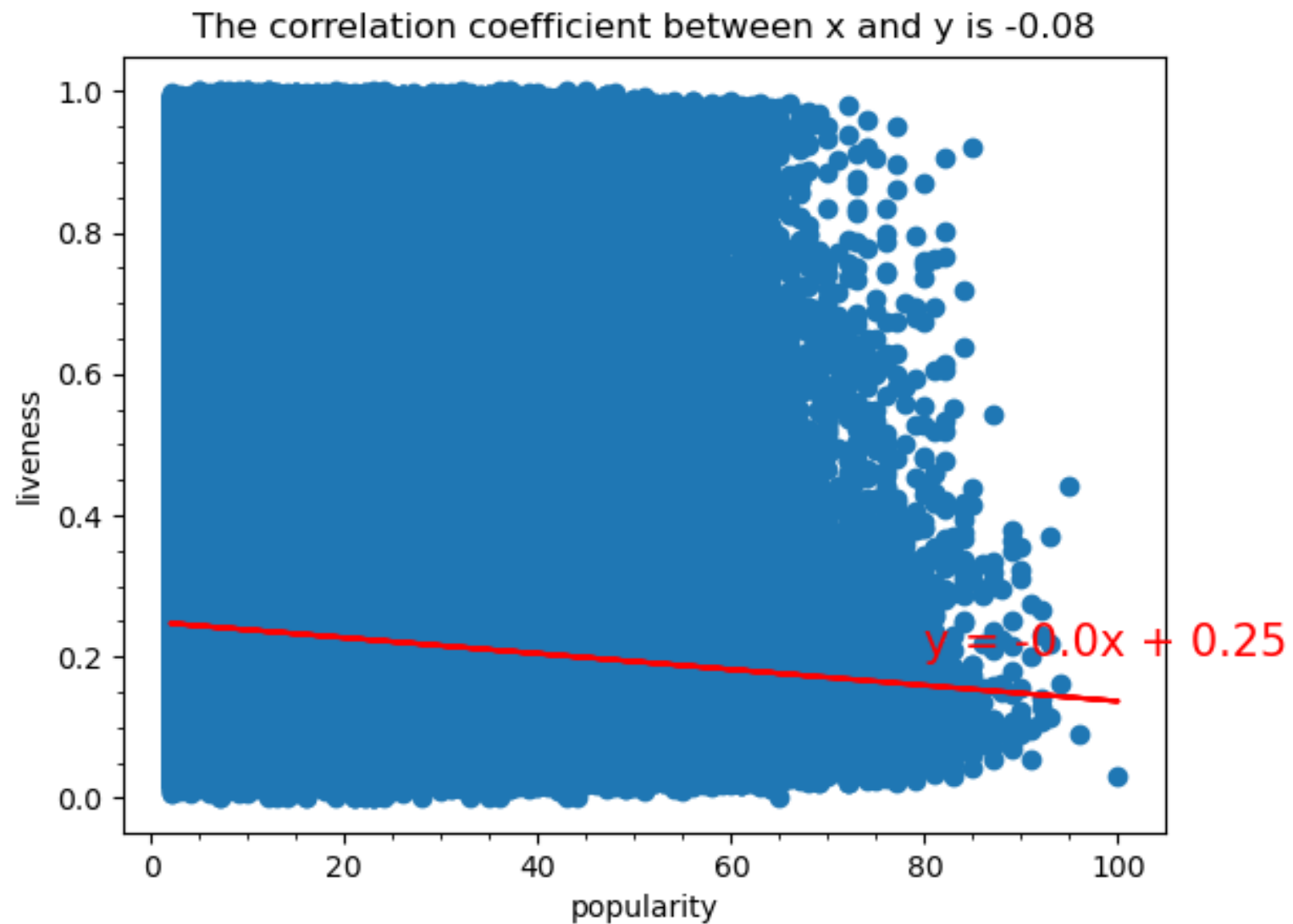
Popularity Score vs. Duration

Danceability

The correlation coefficient between x and y is 0.14

y = 0.0x + 0.5

Q3.

Energy

The correlation coefficient between x and y is -0.01

y = -0.0x + 0.65

"Instrumentalness"

The correlation coefficient between x and y is -0.14

y = -0.0x + 0.31

Liveness

The correlation coefficient between x and y is -0.08

y = -0.0x + 0.25

Duration

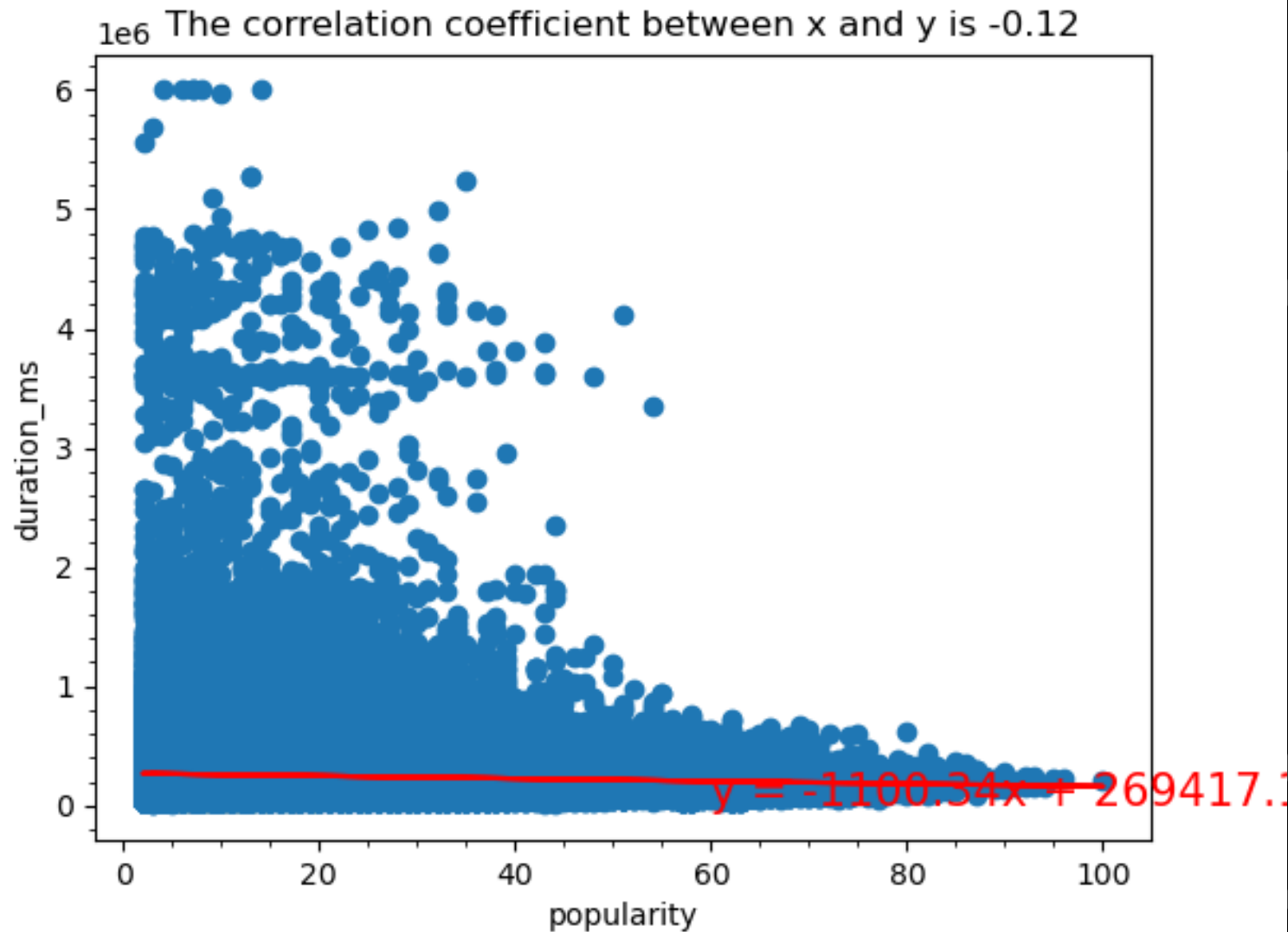The correlation coefficient between x and y is -0.12

$$y = -1100.34x + 269417.1$$
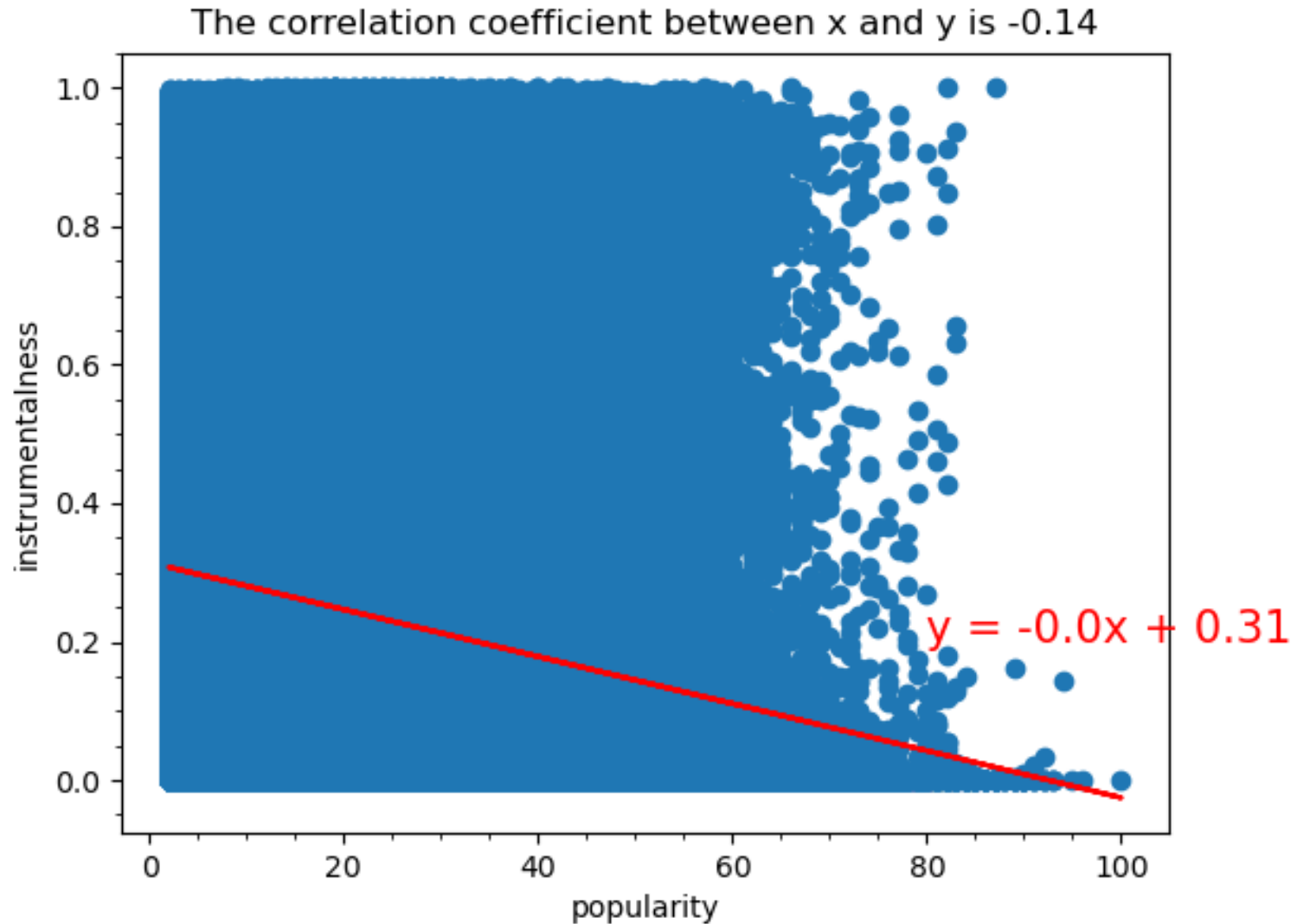
Summary

Danceability Positively Effects Popularity Index

Recently released songs are more likely to have a higher popularity score

Pop, Hip-Hop, Dance are Most Popular Genres

Assessment and Evaluation

Spotify is One Platform

Consider Outside Factors

Thank you