

A stethoscope is positioned diagonally across the frame. The left earpiece features the green Spotify logo, and the right earpiece features the red YouTube play button logo. The background is a dark, textured surface with colorful, diagonal stripes.

# SPOTIFY AND YOUTUBE ANALYSIS

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Capstone II

# ABOUT THE DATASET

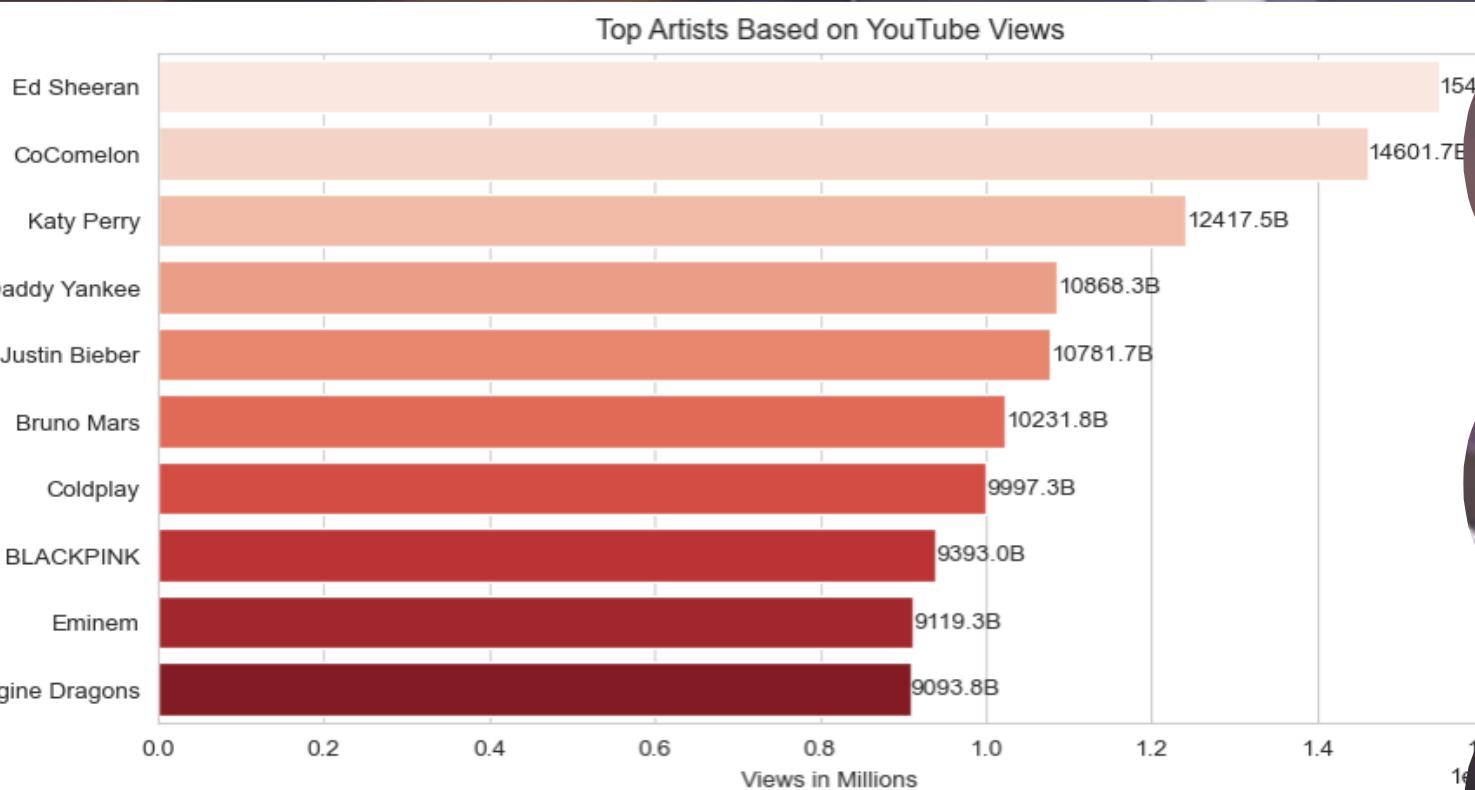
- This dataset is found on Kaggle, ‘Spotify and YouTube’
- The dataset I am analyzing consists of statistics for multiple songs from various artists across the world.
- There are 20,718 entries in total with 26 descriptive variables including Danceability, Views, Streams, Likes, Tempo, Valence and more.[\[1\]](#)
- *Before starting my analysis, I have cleaned the data and dropped any duplicate values to avoid an inaccurate analysis*



# HYPOTHESIS

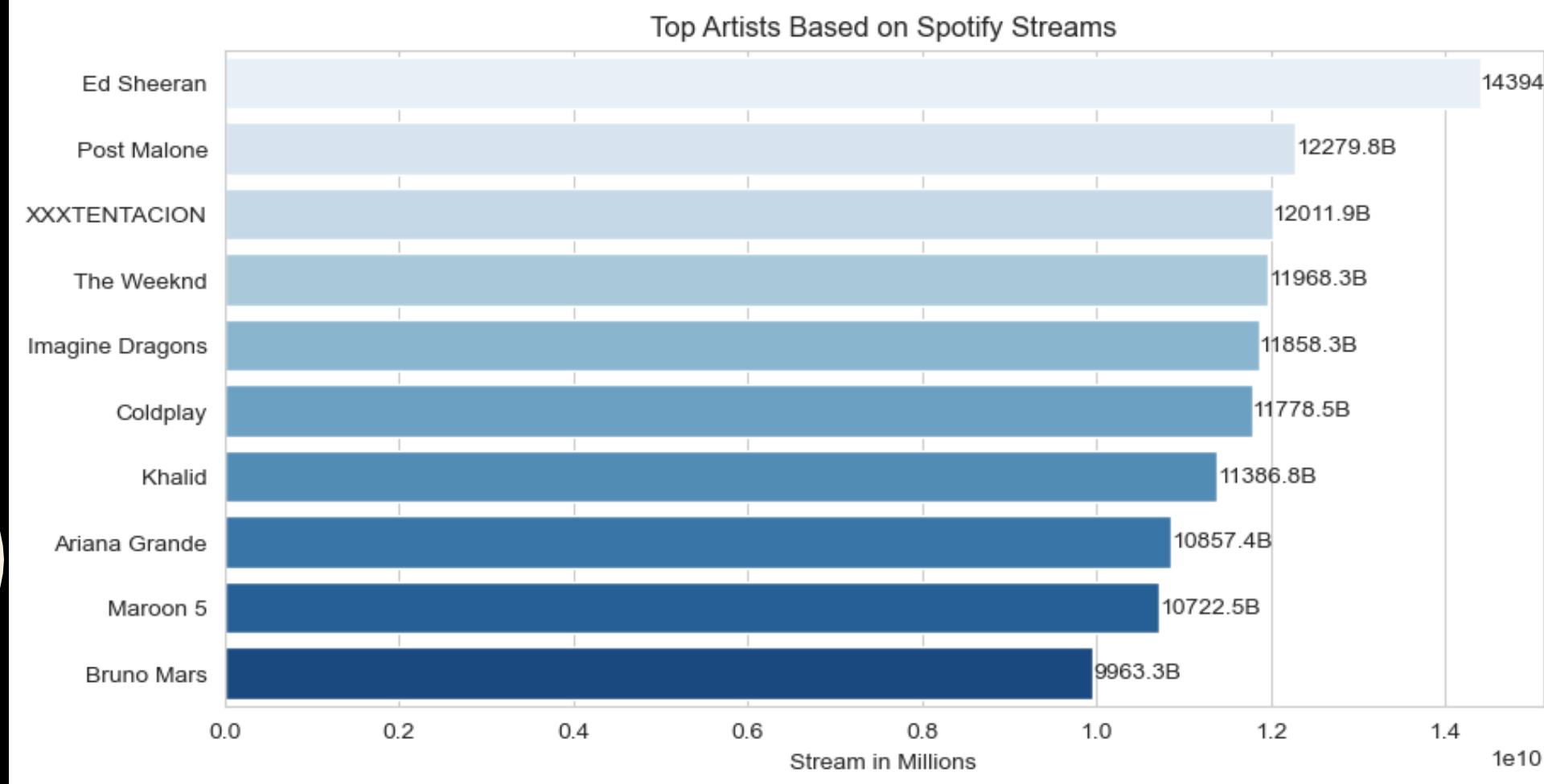
- After viewing the dataset, I will explore if there is any correlation between the popular artists and songs on the two platforms.
- I will be analyzing which variables influence the number of views and streams of the popular songs and artists, and if certain attributes contribute more to a higher number of views.
- My hypothesis would be that the songs and artists with the most views and streams, will have a higher score for Danceability, Energy, and Liveness,
- By completing this analysis, it can help music artists and record labels to better understand how they can optimize their marketing efforts or algorithm, and to increase the visibility of their music on multiple platforms.
- To test this hypothesis, a correlation analysis will be conducted between the number of streams and views for the top songs and artists in the dataset. We will also see if there is any positive correlation between the variables.

# WHO WERE THE TOP ARTISTS ON YOUTUBE?



- ❖ Top 10 Artists on YouTube based on views
- ❖ Views are per million
- ❖ Ed Sheeran had the most views as an artist
- ❖ Artists vary anywhere from Pop, R&B, Kpop, and even caters to kids with CoComelon at #2

# WHO ARE THE TOP ARTISTS ON SPOTIFY ?



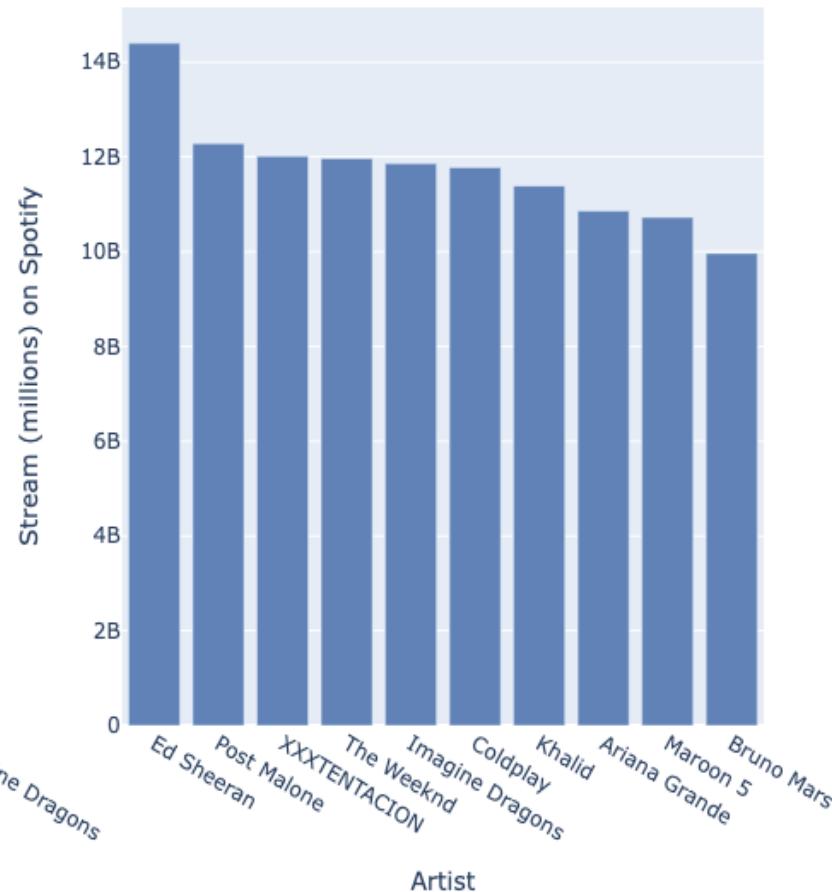
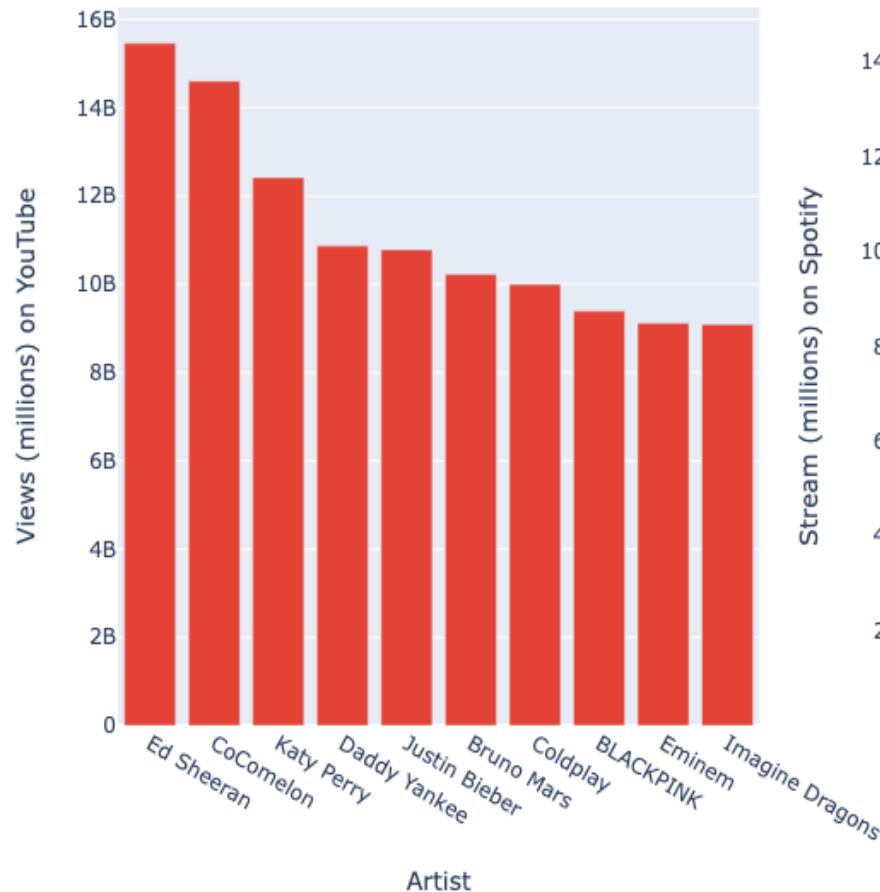
TOP 10 ARTISTS ON SPOTIFY ARE BASED ON STREAMS PER MILLION

THE TOP ARTIST STREAMED ON SPOTIFY WAS AGAIN,  
ED SHEERAN

THE TOP ARTISTS GENRE VARY- BUT MOSTLY CONSIST OF POP, R&B, AND RAP.

# COMPARING THE TOP ARTISTS ON SPOTIFY AND YOUTUBE...

YouTube and Spotify Top 10 Artists by Total Views and Streams



- The following artists appear on both charts, which are consistent performers:

- Ed Sheeran

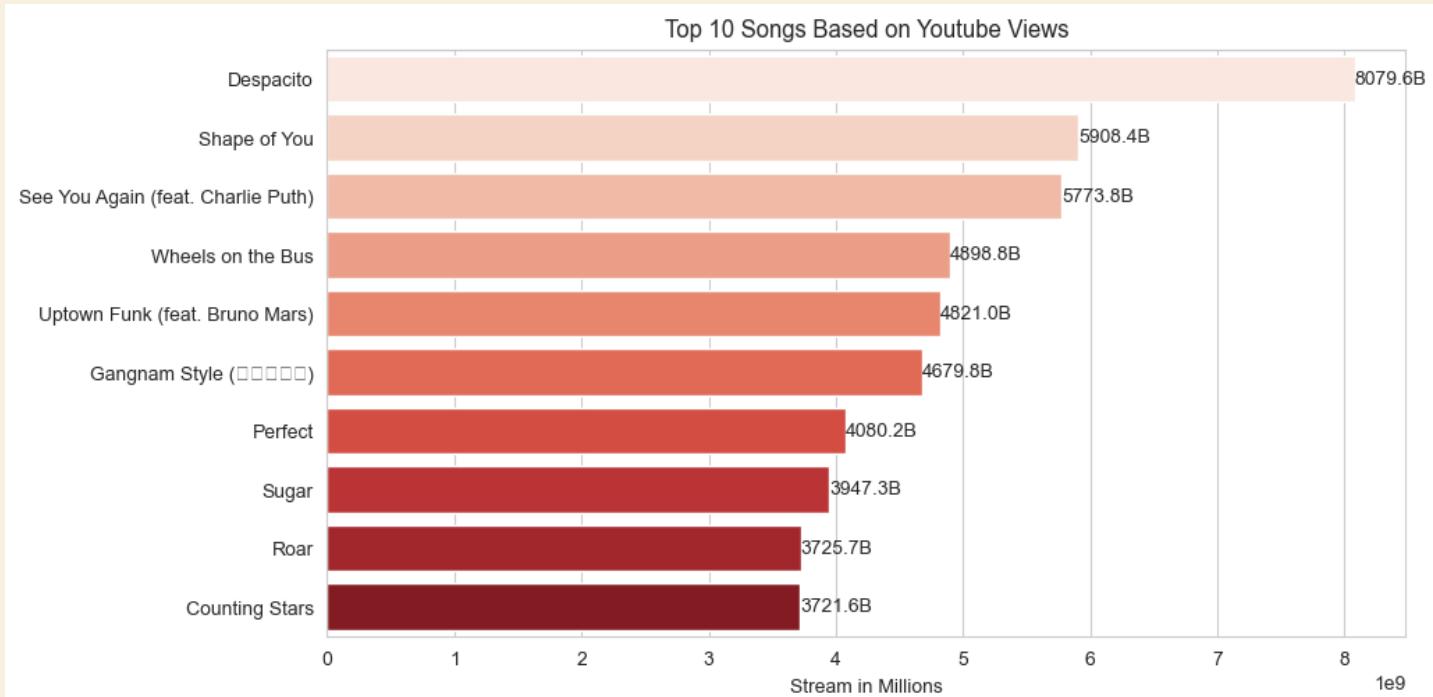
- Coldplay

- Bruno Mars

- However, they are not directly correlated

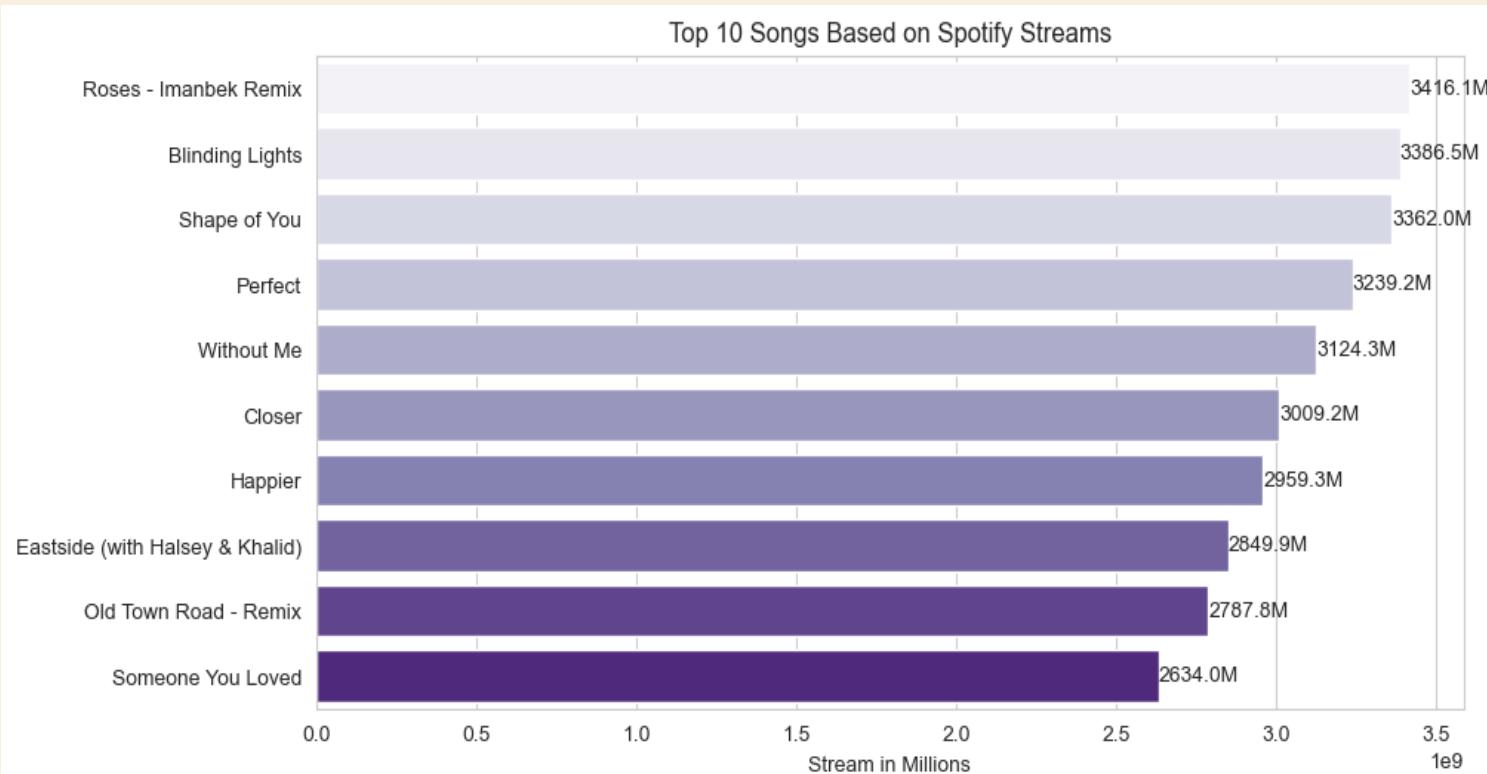
# WHAT WERE THE TOP 10 SONGS ON YOUTUBE?

- ❖ Top 10 songs on YouTube are listed from top to bottom per number of views.
- ❖ Justin Bieber – ‘Despacito’ comes in at number #1
- ❖ These top songs cater to genres anywhere under children, R&B, and pop.





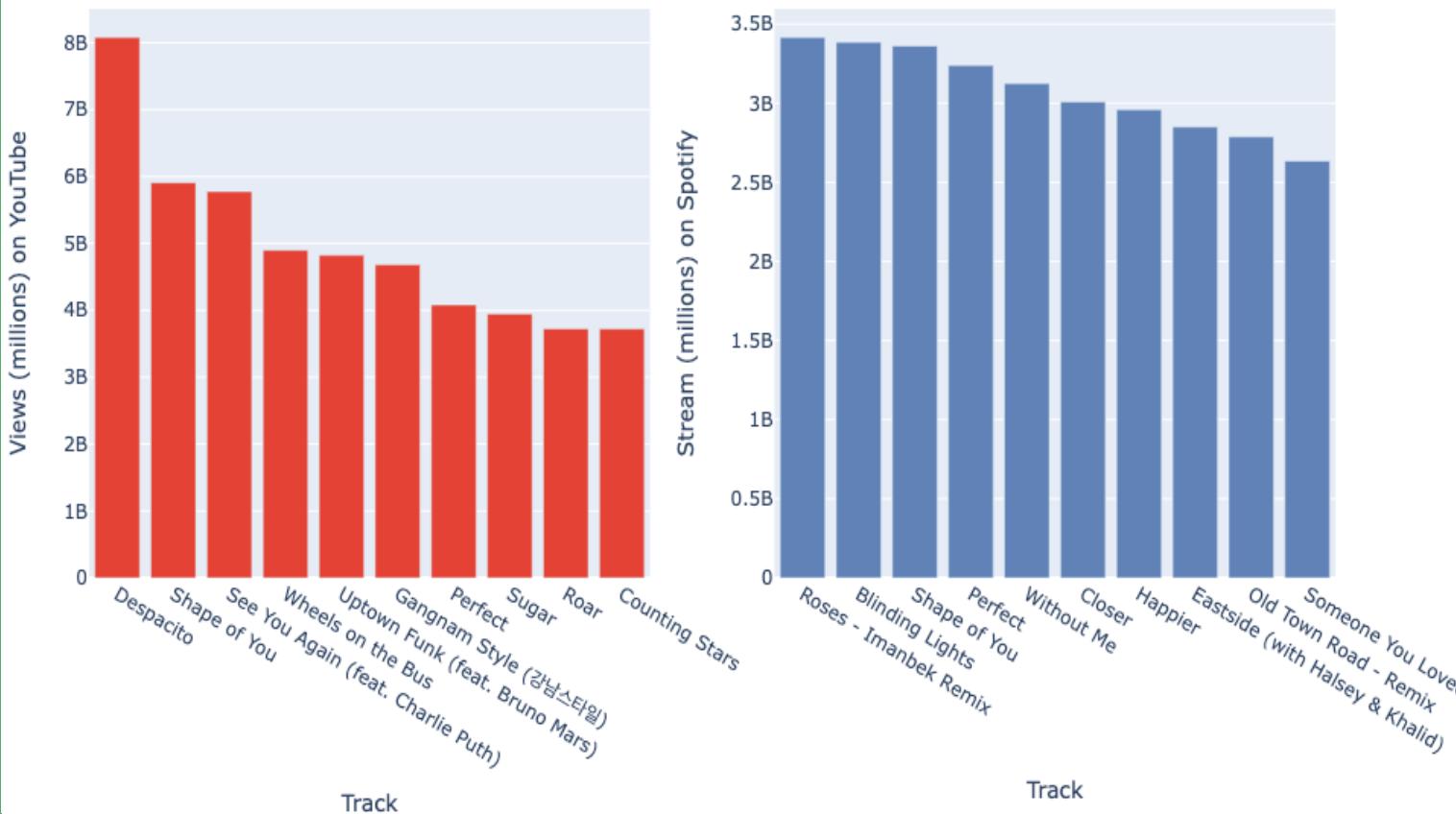
# WHAT WERE THE TOP 10 SPOTIFY SONGS?



- ❖ The top songs on Spotify are listed from top to bottom per number of streams.
- ❖ SAINT JHN – ‘Roses (Imanbek Remix)’ comes in first.
- ❖ Majority of these songs are R&B, with a more steady tempo.
- ❖ I don't notice a diverse genre compared to the top YouTube songs. Such as, where YouTube had a top song geared more towards children ('Wheels on the bus'). Spotify does not.

# COMPARING THE TOP 10 SONGS ON YOUTUBE AND SPOTIFY

YouTube and Spotify Top 10 Songs by Total Views and Streams



Comparing the graphs, we can see that the top 10 songs don't directly correlate

However, there is only one song that are in both of the top 10 which is:

*'Shape of you'* – Ed Sheeran

# ATTRIBUTES

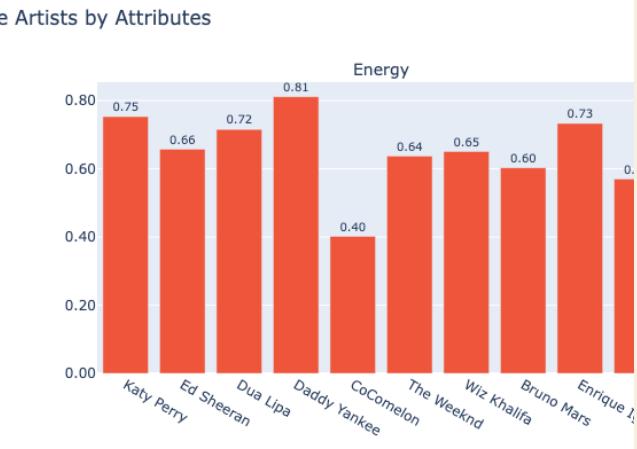
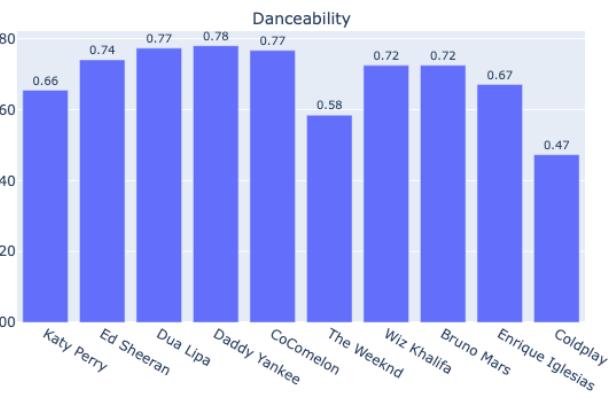
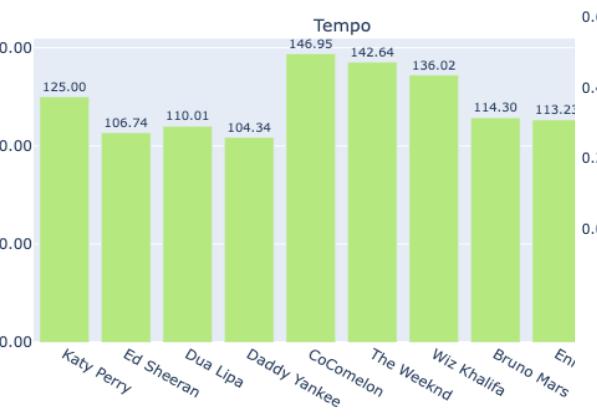
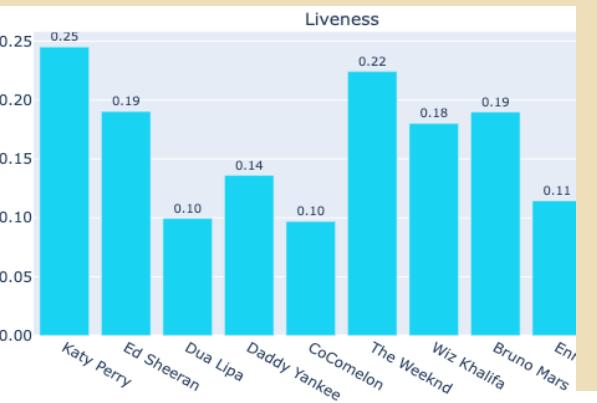
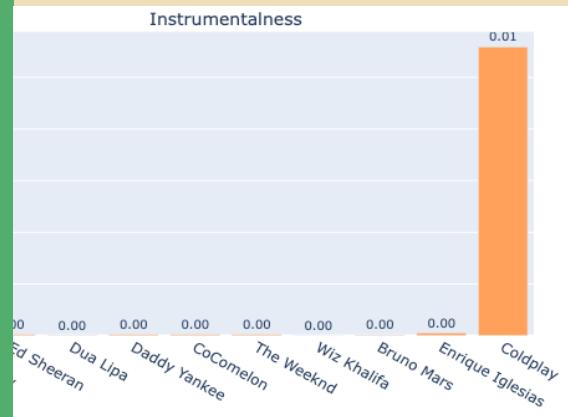
- The next few slides will focus on the attributes of the most viewed and streamed song and artist on YouTube and Spotify.
- By doing so, we can observe if there is any correlation between the attributes and popularity of the songs and artists.
- In this dataset, the included attributes are of the following:

-Danceability	-Instrumentalness
- Energy	-Liveness
-Speechiness	- Valence
- Acousitcness	- Tempo

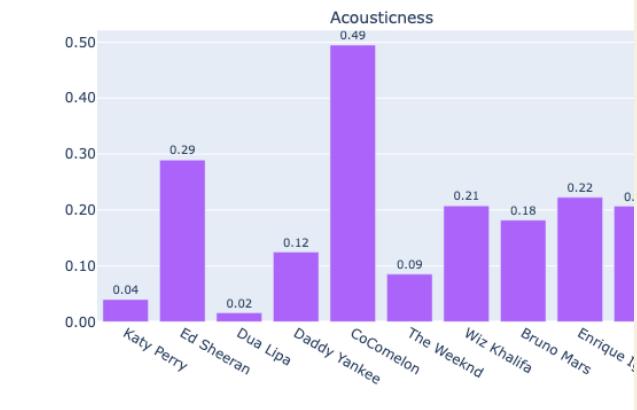
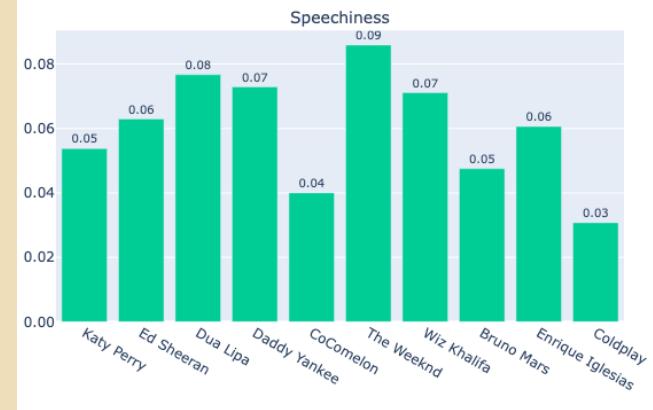
- As mentioned before, I would predict that the attributes ‘Danceability’, ‘Energy’, and ‘Liveness’ would be the most popular.



# TOP YOUTUBE ARTISTS AND THEIR ATTRIBUTES



- For YouTube's top artists, the attribute for the most viewed is 'Danceability'.
- The other attributes for most viewed artists are 'Tempo, Energy, and Valence'
- The attribute that shows up least in the graph is 'Instrumentalness'





# TOP SPOTIFY ARTISTS AND ATTRIBUTES

- For the top artists of Spotify, the following attributes which are ranked highest is the following:
  - 'Danceability', 'Tempo', and 'Energy'

The other attributes of the artists that appear highly ranked are 'Valence', 'Speechiness', and 'Liveness'

# TOP SPOTIFY SONGS AND ATTRIBUTES

- The highest attribute shown for the top Spotify songs is once again, ‘Danceability’.
- The other attributes that are ranked highest are ‘Energy’ and ‘Tempo’



# POSITIVE CORRELATION BETWEEN ATTRIBUTES

The following attributes were consistent in the graphs when comparing the top artists and songs of YouTube and Spotify. Here, we will see which attributes they have in common.

YouTube Artists	Spotify Artist
Danceability	Danceability
Tempo	Tempo
Energy	Energy
Valence	Speechiness

YouTube Songs	Spotify Songs
Danceability	Danceability
Energy	Energy
Valence	Tempo
Tempo	Valence

# CONCLUSION

This wraps up the analysis of the dataset of 'Spotify and YouTube'

As a result, the top 10 songs on Spotify and YouTube may not always match up exactly, but there is likely to be some overlap. For example, a song that is popular on Spotify may also be popular on YouTube such as Ed Sheeran – "Shape of You", because it has a catchy melody or meaningful lyrics that resonate with listeners.

Overall, while there may not be a perfect correlation between the top 10 songs/artists on Spotify and the YouTube, both platforms provide valuable insights into the music trends and preferences of their respective audiences.

In this case, the following attributes that are positively correlated between the top songs and artists are 'Danceability', 'Energy', and 'Tempo'.

This may be because music that is produced with high energy tends to put you in a good mood. I imagine that 'Danceability' is the most common attribute because people like to play music during events, BBQ, driving through traffic, or simply just vibing alone at home.

# I APPRECIATE YOUR TIME AND PATIENCE

❖ To view the dataset, you can access the data on [www.Kaggle.com](https://www.Kaggle.com) and search ‘Spotify and Youtube’.

❖ To view my Python syntax, please visit my GitHub link:

<https://github.com/katalyzd9?tab=repositories>

❖ For further questions or suggestions, please contact me via email

[kathleenbasco\\_4@yahoo.com](mailto:kathleenbasco_4@yahoo.com)