SpotiData Project

Why do we listen to the music we listen to? An analysis of trends on Spotify

Team: Jovan, Sofia & Diana

Description:

We will work with the Spotify API to analyse:

1. The most streamed songs of all time
   Initial Dataset: https://chartmasters.org/spotify-most-streamed-songs/

2. The Top-100 songs of each year of the last 20 years (2000-2021)
   Initial Dataset: https://chart2000.com/about.htm#google_vignette

3. The most streamed artists
   Initial Dataset: https://chartmasters.org/most-streamed-artists-ever-on-spotify/

Through Spotify's audio analysis API we will get information such as:

· Acousticness · Danceability · Duration · Energy · Instrumentalness	· Liveness · Loudness · Speechiness · Tempo · Valence

Questions:

1) (Diana)

What similarities are there in the most popular music?:

Is there any correlation between popularity and danceability / energy / tempo / etc?

From which year are the most streamed songs on spotify?

Do we like less danceable music or more danceable? (danceability)

Do we like vocal or instrumentalness music? (instrumentalness)

Does the music we like sound more positive or more negative? (valence)

- Pie chart for year percentage
- Scatter plot for correlation
- Hist() for distribution

2) (Jovan)

What differences/similarities are there in the most popular music through time (from 2000 to 2021)?

How has the danceability, the tempo, the energy changed over the last few years?

Were there any of these variables that changed a significant amount?
- Analysis of features compared to chart position in the past 5 years
- Using groupby().mean to create average values for each category of each year.
- Then using these values create a plot to see the change over the years (Multiple plots per figure)
- Scatter plot for the most important features and finding correlations in terms of position in the charts.

3) (Sofia)

Of the 1000 most popular artists,
How many songs did they make on average? How many of them became popular?
Is there a difference with the top 10?
What is the most popular genre?
- Bar chart for percentages of popular songs
- Pie chart for distribution of genres

Tech Resources:

Spotify Audio Analysis API Documentation:
https://developer.spotify.com/documentation/web-api/reference/#/operations/get-several-audio-features