MONU-MEL-DATA-PT-11-2020-U-C

Project Proposal – Project 1

Dancing Through The Decades

Objectively measuring music for the last hundred years using Spotify

Presentation date: 21-JAN-2021

**Group**:

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Premise:

Spotify offers a powerful database, containing data for over 160K songs. The database includes some ad-hoc metrics, such as *loudness*, *danceability* and *key* . As a group, we identified “Music” as one of our common interests. When exploring what kind of data project can be developed around that topic, the opportunity to use the Spotify database came up.

After a preliminary exploration, we were impressed by the thoroughness of the database, which has every single song categorized by year of release. This sparked an overarching question that we are keen to answer: **How has music changed over the years?**

Keeping in mind the content of the database and the limited time available, we segmented the main premise into four areas of analysis:

* Which decade has the most *danceable*music? – Comparison between average danceability for each decade, charting how it has evolved. Hypothesis: based on reputation and anecdotal evidence we believe the 70s will beat every other decade in *danceability*.
* Has the duration of songs changed over the years? From the long jazz jams of the 50s to the long power-ballads of the 80s and the short radio-edits of the 90s, we’ll analyze the data to identify the trends in song duration. Hypothesis: COMPLETE
* What is the most popular Key in each decade? And of all times? Something that made us geniuniely curious is wether there is a given key that makes songs popular or if a hit can be written in any key. Furthermore, have the most popular keys changed over time? Hypothesis: COMPLETE
* We are all familiar with the songs that top each decades hit lists. Now, what are the actual most popular songs of the last hundred years? We will look at the popularity information from the database and find out what are the most popular songs of each decades and all times. Hypothesis: COMPLETE

**Sources**:

Categories explained - <https://developer.spotify.com/documentation/web-api/reference-beta/#category-tracks>

Database, extracted by a KAggel user from the Spotify API: <https://www.kaggle.com/yamaerenay/spotify-dataset-19212020-160k-tracks?select=data.csv>