Spotify Playlist Analysis Project

**Tools Used**

- Spotify Web API

- Python Programming Language

- Python Libraries: Pandas, Seaborn, Matplotlib, TextBlob, and NLTK

**Questions Asked**

1. What is the Genre composition of my playlist?

2. What are my most common artists?

3. What release years are the most common for my music playlist?

4. How does genres affect the attributes of my songs?

5. Is there common values for attributes to my music as a whole?

6. Using NLP, what are the most common words in all of my songs' lyrics?

7. Using NLP, how do sentiments of the song lyrics correlate with song attributes?

**Insights Discovered**

1. Pop is the most common genre in my playlist, followed by Country and Alternative.

2. My most common artists are Morgan Wallen, Fall Out Boy, Luke Combs, and Eminem.

3. The release years with the most songs in my playlist are between 2014 and 2021.

4. There are some differences in song attributes based on genre. For example, the world genre has higher acousticness but lower energy.

5. There are some common values for song attributes across all genres.

6. The most common words in my songs' lyrics are "love", “never”, “night”, and “baby”.

7. The sentiment of the song lyrics is positively correlated with Loudness and Energy, but negatively correlated with Danceability and Speechiness.

**Recommendations**

Based on the analysis, it is recommended to continue to add songs to the playlist that fit within the existing genre composition and artist preferences. Additionally, it may be beneficial to explore other playlists generated by Spotify to compare their results with my own.

**Future Work**

Future work for this project includes analyzing the playlist over time to identify any trends or changes in genre composition or artist preferences. Additionally, it would be interesting to explore the lyrics of specific artists or genres in more depth to identify any recurring themes or patterns.