

1. Title: "Song Structure and Lyrical Analysis of Different Artists and Genres"
2. Names: Eric Fields & Garrett Hill
3. Background:
 - a. Songwriting is formulaic in some respects, particularly the overall structure. There are infinitely many structures that a song can have even from 2 substructures like just Verse and Chorus (V-C, C-V, C-C-C, etc.). Only a relatively small proportion of these structures are ever observed even with as many as 6 or 7 general structural components to choose from. With that being said, beginner songwriters select song structures that are normal within their desired genre.
4. Goals with specific aims and objectives
 - a. 75% goal:
 - i. Have a tool that can scrape the genius API for the top n songs of that artist and store each of their songs into an individual song Struct that splits up the song's chorus/verse/intro/etc. along with the corresponding lyrics for that section
 - ii. Have tools that analyze the way a given artist writes a particular part of their song (verse/chorus/intro/etc)
 1. Example: Doja Cat's choruses on average have x number of words and y number of lines
 - a. Plot a histogram showing the distribution of number of words and number of lines
 2. Example: most common nontrivial words ("the" "a", etc.) in given song structure
 - b. 100% goal:
 - i. Do everything in the 75% goal, but implement it in such a way that the user can specify lists of artists to do comparative analysis among artists in a list
 1. ex) compare different pop singers
 - ii. Also make it so that the user can compare artists between two lists
 1. ex) compare differences between pop singers and rock singers
 - c. 125% goal:
 - i. Do everything in the 100% goal, but also incorporate natural language processing tools to look into sentence structure for the different structures/lyrics
5. Cited references:
 - a. Genius API for song lyric scraping:
 - i. <https://docs.genius.com/>