**Executive Summary**

*My project will be about the differences between a music album and a remastered version of that album. I am interested in this because I want to know if the remastered releases of albums only exist for continued capitalization of the album, or if there are big enough differences in sound between the albums to justify a remaster. The data questions I am attempting to answer are if there are differences in energy, loudness, timbre, etc. between the remaster and the original, if there are similar changes across other albums with remasters, and if these differences are significant. I will be using the Spotify Web API to collect data for 3 different albums and their remasters: ‘Turn On The Bright Lights’ by Interpol, ‘Pretty Hate Machine’ by Nine Inch Nails, and ‘London Calling’ by The Clash. My main challenge with this data will be cleaning it to only give me the information I need in a usable format.*

**Motivation**

*I am interested in this because, while mastering and remastering is a very important part of releasing recorded music (especially when a song or album is being reproduced in a different medium, i.e. vinyl to digital), some popular/classic albums have gotten multiple remasters, even when it’s not being reproduced into a new medium. I wonder whether these albums are being remastered and re-released for the sole purpose of continued capitalization off the album’s success, or whether the differences in sound between the remaster and the original are big enough to justify the existence of the remaster beyond monetary reasons.*

**Data Question(s)**

*The questions I will be attempting to answer are, What are the differences in energy, loudness, timbre, etc. between the two different versions? Are there similar changes in sound in remastered versions for different albums? Are these differences between the original and the remaster significant?*

**Schedule (through 6/25/2020)**

1. Get the Data (5/15/2020)
2. Clean & Explore the Data (6/3/2020)
3. Create Presentation and Shiny App (6/18/2020)
4. Internal Demos (6/19/2020)
5. Demo Day (6/25/2020)

**Data Sources**

*I will be using Spotify’s audio features and audio analysis data of the songs from the 3 albums I am analyzing (‘Turn On The Bright Lights’ - Interpol, ‘Pretty Hate Machine’ - Nine Inch Nails, ‘London Calling’ - The Clash), and a remastered version of the 3 albums. I will pull this data using Spotify’s Web API.*

**Known Issues and Challenges**

*An issue I expect with this project will involve cleaning the data from the Spotify Web API, specifically the audio analysis data. The audio analysis data for one song is very large, as it breaks down a song beat by beat, and even tatum (the smallest subdivision of a beat) by tatum. On top of that, each beat/tatum has 12 different values for both pitch and timbre. Cleaning this data for each song in each album to only give me the information I need (and in a usable format) for my analysis will be challenging. My possible solution to this issue is to create a formula to simplify the 12 values for pitch/timbre down into one value, making it much easier for analysis and reducing the size of my data.*