

SI 206 Final Project Plan

- Make a copy of this document.
- **Every** team member must submit a link to this document in Canvas/
- Make sure you give **everyone with the link** commenter access!!

A. What is your group's name?

SOLO

B. Who are the people in the group (first name, last name, umich email)?

Liam Kinney, kiliam@umich.edu

C. What APIs/websites will you be gathering data from? ***The base URLs for the APIs/websites must be different for them to count as different APIs.***

I will be using the Spotify API: <https://api.spotify.com/v1>

Last.fm API: <http://ws.audioscrobbler.com/2.0>

And Genius API: <https://api.genius.com>

D. What data will you collect from each API/website and store in a database? Be specific.

Spotify API: <https://api.spotify.com/v1>

- Song data (title, artist, duration, popularity score)
- Genre classifications for tracks/artists

Last.fm API: <http://ws.audioscrobbler.com/2.0>

- User-tags/genres for songs
- Play counts

E. What data will you be calculating from the data in the database? Be specific.

- Average song duration per genre
- Correlation between song length and popularity score
- Sorting genres based on average ratings for genre

F. What visualization package will you be using (Matplotlib, Plotly, Seaborn, etc)?

I will be using Matplotlib

G. What graphs/charts will you be creating?

We will be using charts to express how different genres may lead to different user ratings and how song length compares to user ratings. I'm curious if looking at song type and genre shows any patterns with user rating.

- We were thinking of using a bar chart and box plots to visualize the average ratings across genres
- Scatter plot with regression for Song Length vs. Rating
- Maybe another unique plot combining song length, genre, and rating to see if there is some correlation between all three. Perhaps song length is influenced by genre, so it indirectly affects ratings if ratings is dependent on genre.

H. Who is responsible for what? Please note that all team members should do an equal amount of programming and total work.

Liam Kinney:

- Last FM and Genius API scraping (User-tag, genre, play count, lyrics)
- Song Length vs Rating Scatter plot with regression

Aditya Kutty: