

Michaela King

Proposal for Final Project

CIS 3120

With Spotify wrapped on the way, I wanted to do a fun project that uses Spotify Web API to analyze a user's listening habits and rate their music taste based on various metrics such as diversity, uniqueness, and mood balance. I will probably test using my own data that I was able to request from Spotify about a month or two ago. There's a couple of these types of websites already out there but I want to attempt to make my own (I also don't trust Spotify wrapped from the last couple of years. I want to analyze it myself)

1. Spotify's Web API allows authentication using OAuth 2.0. I can also retrieve top tracks, artists, and genres from their database and web developer websites. I can also retrieve audio features like danceability, energy, tempo, and mood. I downloaded my own dataset from Spotify to test this integration, but if I do it correctly, it should be able to work with other Spotify users.

<https://developer.spotify.com/documentation/web-api/tutorials/code-flow>

<https://developer.spotify.com/documentation/web-api>

2. Object-oriented programming for classes: I would probably make a user class, genre class, artist class, analyzer class, TasteEvaluation class, and Visualizer Class to export a report with scores and graphs.
3. For visualization, I will attempt to show a chart based on users most listened to genres, artist diversity and top tracks played. A mood distribution pie chart and a obscurity scatter plot.
4. Error Handling I will have to validate the user has enough listening data.
5. Documentation. I will provide information to set up and guide the user towards authentication with Spotify (There is a way to do this. I'll have to research a little more). The metrics used to rate their taste and how to run and interpret the results.
6. &7. I really hope I can create the project I'm thinking of in my head because I love throwing my Spotify information into random analysis websites.