Project Proposal for CSCD 350 Spring 2023

Spotify Playlist Curation Website
Version 1

6: Software Samurai

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GitHub Repository: https://github.com/Neural-Node/CSCD350-Spotify_Curation_Site

Motivation

The problem we are trying to solve is the excessive time it takes to look for new, good music that corresponds to an individual's tastes. On Spotify there are over 100 million tracks to choose from. Choosing songs from such a large list can be overwhelming and time consuming. With such busy schedules it seems like a waste of time to spend free time manually sorting through all those songs to make playlists. Even with this method people may have difficulty finding new music that fits their tastes. Despite these challenges, having a good playlist that fits a person's mood or activity can greatly improve their attitude.

Our intended users are Spotify listeners, since it is required to have a Spotify account to access our service. More specifically, our users will be people who would like to explore new music but do not have the time to do so. An example of one of our users would be an overworked student who wants to relax by listening to new music. However, the student does not have the time to explore new music because their assignment due dates are quickly approaching.

Finding good new music that corresponds to the user's tastes takes time and effort. They could look up pre-existing playlists, hoping to find something that suits their taste, or look for artists that are similar to ones they already listen to. There are other ways to find new music, but all of them take time and effort. Overworked students, full-time employees, etc might not have as much time as they want to explore new music, or they may want to spend their free time on something else.

Our website can take away some of the pain and hassle of searching for new music. In seconds the user can generate a playlist that is catered to his or her tastes. That user can then share the new playlist with their friends and family.
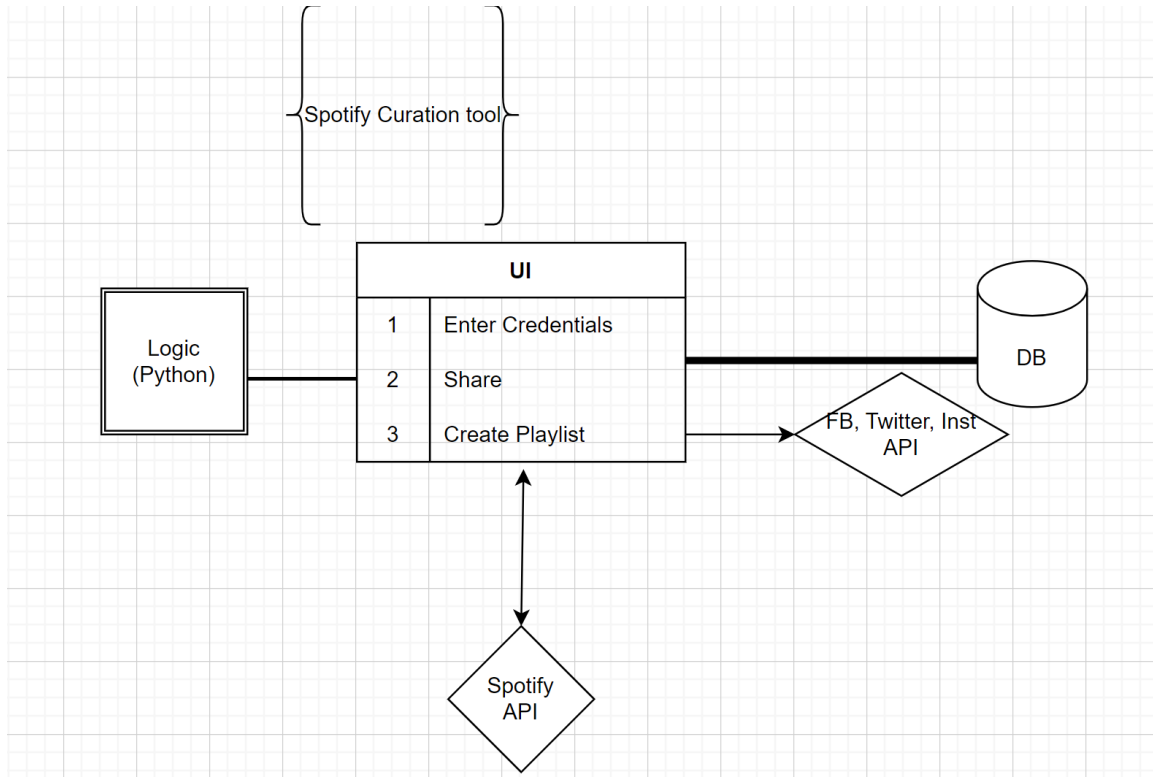
Approach

The general flow for us to address problems will be: define the problem, brainstorm solutions, pick a solution, implement solutions, and review the results. Some of the current problems that we will have to address are:

- Create a Website and database for user profiles.
- Getting the appearance of the website designed and created.
- Get access to a user's spotify account and manipulate the data that we pull from that.
- Creating code that will be able to identify new songs that are related to the music that the user already listens to.
- Figuring out and implementing a sharing feature.

The nature of our solution will be an easy to use and easy to access website. It will require a web server and an existing spotify account. As for hardware, the users will only need a computer or phone and an internet connection to use the website. The key difference between this solution and the previous solutions (i.e. manually making personal playlists) is the website will be much faster and easier to use.

We may be limited by the time we have to work on the project. Therefore, we may have to scale down the number of functions we want to implement. The main thing we may have to get rid of if we run out of time is the sharing feature. Some other limitations the website may have is being able to accurately find new music that fits the user's taste. If the user has a really obscure music preference, in which not many similar songs exist, the code we come up with may have trouble accurately creating an accurate playlist.

Challenges and Risks

The biggest challenge is creating the code that will take in the users listening habits (bands/songs) from Spotify and identify other songs that are related. Whether the new songs it picks are based on genre, associated bands based on what other people listen to, or something else, the code may be difficult to get to work. From pulling data from the user's Spotify account, to the actual curation of new songs, and putting them into a new playlist, could all pose a challenge. The best way to mitigate this issue is to define how the code will specifically function and work towards that early on. It may also be helpful to look up how other similar programs handle these issues.

Hours Spent on Proposal: 3