**Title of Project:** Spotify playlist optimizer

**Team members:** Sam Berger, Sam Busser, Jasmine Bascom

**Language/toolsets:** Python, AWS, HTML/CSS, potentially MySQL

**Project description:** The purpose of our web application is to optimize user’s Spotify playlists. We will do this by determining the songs on the provided playlist that are the most frequently skipped and present those to the user. In addition to this feature, we will also provide the user with songs that are recommended for them based off of the songs already in the provided playlist as well as songs that don’t fit in with the rest of the songs in the playlist. This informs the user of what songs they don’t really listen to on their playlist and can allow them to clean up their playlist. The goal of this application is to inform the user of what songs they don’t listen to on their playlist and can allow them to clean up their playlist as well as find new songs to add.

Our system will make heavy use of the Python Spotify library called Spotipy. We will first have the user sign in to their Spotify Account and authorize our app to access their playlists through the Spotipy library. Once this is done, we will use the Spotify API to access the user’s most recently listened to songs as well as their most listened to artists and songs. We will also use an API that works in tandem with the Spotify API called The Echo Nest. This API will be used to create a graph of artist and track similarity (the closer a song is, the more strongly related it is). We will then use this graph to find songs that would fit in well with a playlist and those that would not and recommend adding or deleting those songs from the desired playlist.