**Project Proposal: Spotify music analysis - group #10**

Date created: 3/13/24

* **Project title**:
  + Exploratory data analysis using data from Spotify data API.
* **Team members**:
  + Chris Kilkes
  + Divya Govil
  + Ryan Hoffman
* **Project description/outline**:
  + Analyzing user profiles / behaviors / genres, top artists within a genre, overlaying geographic analysis.
  + Weather + geo + user behavior to analyze user genre preferences (q: does weather + geo influence music listening / production behaviors?)
    - Make sure to be careful about using historical data - advice from Marc
* **Research questions to answer**:
  + Visualize the differences between genres across countries
  + User listening behaviors (# of songs, repeats, listening history, genre preferences, etc.)
  + Explore user artist preferences between countries
* **Datasets to be used**:
  + Spotify API: <https://github.com/iamsumat/Spotify-Master-Analysis>
  + Previous Spotify API project referenced: <https://github.com/iamsumat/Spotify-Master-Analysis/blob/master/Spotify%20Artists%20%26%20Music%20EDA.ipynb>
* **Rough breakdown of tasks**:
  + Step 1: Get the data.
    - Action: Create Spotify token ID for use in api calls (config file) using Spotify account
    - Confirm access to the API
    - And then that API pulls down
    - Owner: Ryan
  + Step 2: Create outline.
    - Actions:
      * Create outline project scope / steps in project Jupyter workbook
        + Data cleanliness
        + Analyze the data (dataframes/tables)
        + Visualize the data (charts)
        + Summarizing data findings and insights
    - Owner: Chris
  + Step 3: Review project workbook / outline, finalize, then align on final outline and tasks & questions we’re trying to answer based on what’s available in the data
    - Owner: Divya
  + Step 4: Work the project.
    - Action: Divide the data formatting and visualization work for each question, assign to team members
  + Step 5: Review the work.
    - Action: Team to meet, review each other’s work, revise as necessary.
    - Goal: Final solutions for data presentation and visualization for each question are complete.
    - Owners: Team.
  + Step 6: Build the analysis.
    - Action: Develop and edit the insights based on data analysis.
    - Owners: Team
  + Step 7: Build the presentation.
    - Action: Create final team presentation.
    - Owners: Team
  + Step 8: Present the work.
    - Presentation on process, insights and summary to class - week of 3/25.
    - Owners: Team