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SI 206-002

Final Project Report

1. My initial goal for the project was to work with the Facebook API to count how many posts were on my newsfeed each day. I switched projects and then my goal transitioned to working with the popularity ratings on Spotify to find out the score for my favorite artists based on their most popular tracks.

2. I achieved my second goal, which became the final project that I am submitting.

3. The largest problem I faced was the initial stage of my project when I wanted to work with Facebook. Unfortunately, after several days attempting to be granted access to the Facebook API's needed for my project and talking with GSI's and my classmates, I had found out that Facebook's new data use policy makes it incredibly difficult to get access to data. I decided to switch to Spotify from there, and it has been a smooth ride since.

4. Social Media Report:
   - Travis Scott had an average popularity of 81.4
   - Drake had an average popularity of 84.9
   - Billie Eilish had an average popularity of 83.3
   - Kanye West had an average popularity of 75.9
   - Khalid had an average popularity of 80.0
   - Halsey had an average popularity of 75.9
   - Ariana Grande had an average popularity of 85.9
   - SZA had an average popularity of 72.2
   - Maroon 5 had an average popularity of 72.8
   - Shawn Mendes had an average popularity of 79.4
   - Ariana Grande had the highest average popularity rating and SZA had the lowest

5. Instructions for running the code:
   - First, you must install spotipy. Type pip install spotipy in terminal.
   - Second, run SI206FinalProject.py. Make sure you are in the right directory, which is final-project-elaila.
   - Third, you will be directed to the redirect uri. Copy and paste the url and type it in terminal.
   - Fourth, the bar chart and list of average popularity of each artist based on their top ten tracks should appear on your screen.

6. Documentation for each function written:
   - def SetUp()

- Input: None
- Output: The function returns sp, which is an object of a class "Spotify" that gives you access to api functions
- def getTopTracks(API, artist_dict)
  - Input: API, artist_dict – provides access to artist data
  - Output: track_info_list – creates a list that contains information such as the artist name, the name of the track, the album name, the album release date, and the popularity
- def setUpSpotifyTable(track_info_list)
  - Input: track_info_list – description same as above
  - Output: Creates sqlite database
- def getPopularityAverage()
  - Input: none
  - Output: average_popularity – returns the average popularity of each artist based on the popularity of their top ten tracks
- def drawBarChart(average_popularity)
  - Input: average_popularity – description same as above
  - Output: bar chart that shows the average popularity of the top ten tracks of ten artists

7. Resources Used:

Date	Issue Description	Location of Resource	Result (did it solve the issue)?
Dec 4, 2018	Wasn't able to get access to Facebook data	Facebook's website, GitHub, and GSI	Issue was not resolved. I switched my project to Spotify
December 8, 2018	Had trouble setting up the SQLite database	GitHub examples and asked my classmate for help	Yes, the issue was resolved!