HKV INC.
Final Project Report

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Our Project Goals

Our goal is to find if there is a correlation between Tiktok frequency and the amount of Billboard top 100 Youtube views and Spotify streams.

Plan on working with Tiktok API, Spotify API, Youtube API, Billboard top 100

Gather the amount views on a song on youtube and the streams of the same song on Spotify

and see if the amount of uses a snippet of the song has on Tiktok and the engagement on the post affects the prior Youtube and Spotify data collected

Goals Achieved

The goals that were achieved including what APIs/websites you actually worked with and

what data you did gather

Being able to format certain API calls to receive information about songs.

Problems Faced

- When trying to collect data from the sites through API calls, we came across not being able to receive the data we wanted due to struggling to format each request correctly with all attributes needed. TikTok did not work since we couldn't format the request properly
- Deciding which streaming services to pull information from since not all APIs allowed to pull all the amount of information we were looking for, in our case we wanted top 100 songs but we would be limited to 30,50, 60 songs per call. When making multiple calls we would still receive the same batch of songs from the previous call.
- Merging(resolving conflicts) everyone's work together on github because we'd work on the same files sometimes.
- Scheduling conflicts with meetings in person, zoom worked best.

Calculations

The calculations from the data in the database (i.e. a screenshot)

Visualizations

The visualization that you created (i.e. screenshot or image file)

Running Code Instructions

Open Terminal, navigate to the directory where you want to store the local copy of the repo, type the following command:

    git clone INSERT HTTPS

Open {streamingService}.py file and run the program to generate respective JSON files

    streamingService = [lastfm,spotify,wikipedia_scrape]

Open database.py and run program to create database with tables

Function Documentation

read_spotify_data()	
read_spotify_data()	
read_spotify_data()	
set_up_database()	
tiktok_api.py	
lastfm_api.py	

Resources Used

Date	Issue description	Resource	Result
12/13/2024	API documentation for spotify track data	https://spotipy.readthedocs.io/en/2.24.0/#getting-started	Retrieved data and got API key from cite
12/13/2024	Website contains youtube view data	https://www.googleapis.com/youtube/v3/videos	unable to get more than 30 rows from database, had to use another source
12/14/2024	API documentation for TIktok	https://ads.tiktok.com/business/creativecenter/inspiration/popular/music/pc/en	Was not able to get more than 30 rows from database, had to use another source
12/15/2024	Provided data of billboard 100 top artist and songs chart	https://en.wikipedia.org/wiki/Billboard_Year-End_Hot_100_singles_of_2024	Web scraped the data and was able to implement it into project
12/16/2024	API documentation for Last FM music charts	https://www.last.fm/api/intro	Provided API key from the cite, which had data on top music charts