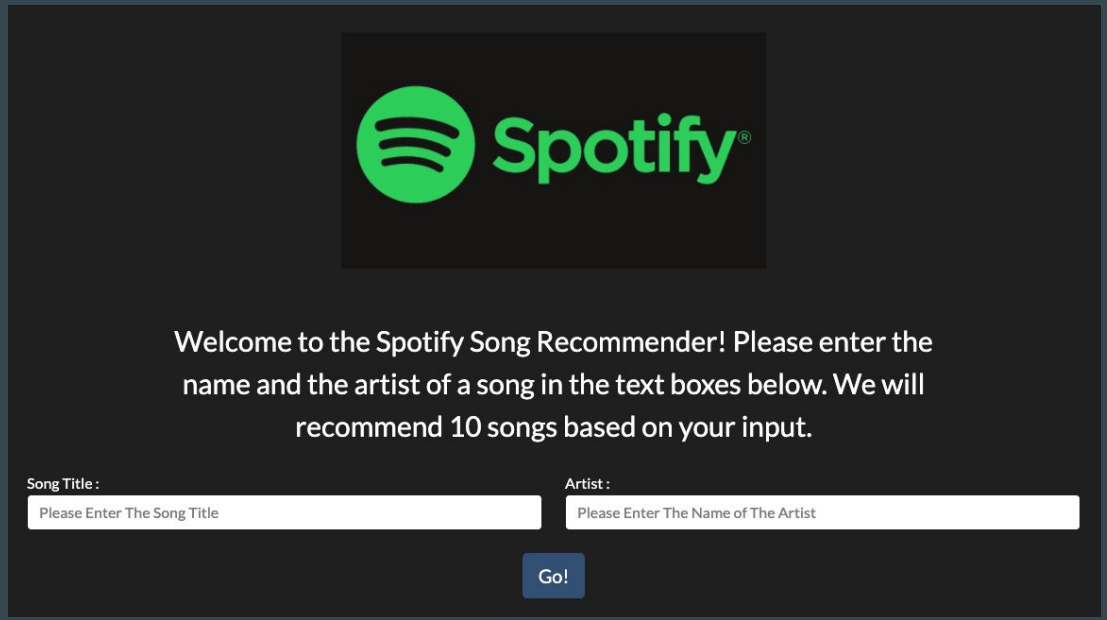
Spotify Song Recommender System

Discover Songs Based On Your Preferences

Motivation / About the app

- Listening to music is an important pastime
  - Spotify is one of the most popular platforms
- Users might find it difficult to find new songs to listen to when they are getting tired of the old songs
- In addition, people are not familiar with songs of the languages which they do not use in the everyday life
- This app intends to find novel recommendations for the users when they enter a song they like
  - Recommendations would include the songs from all of the world (Chinese, French, Japanese, etc.)

Link of the app / Demo



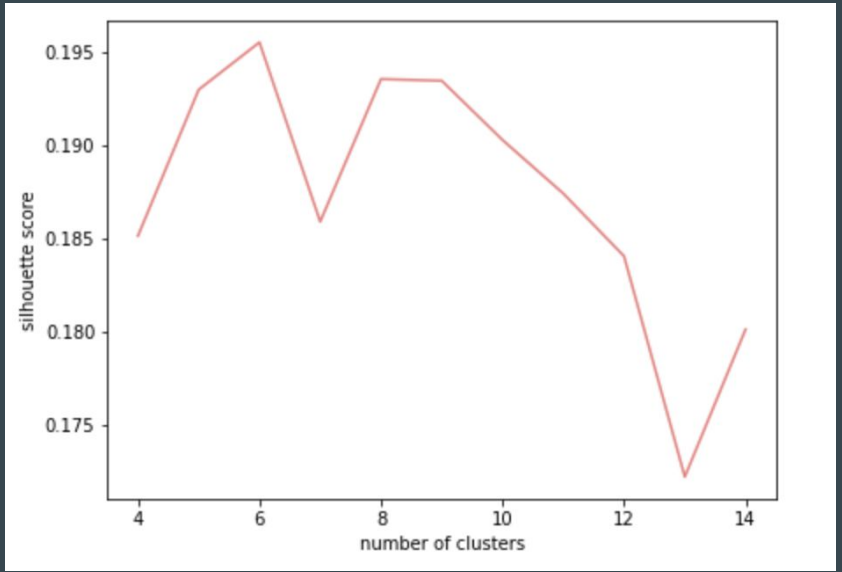
http://spoti-publi-5mdicepn2mmc-2102153181.us-east-2.elb.amazonaws.com./

Dataset

- Spotify Dataset 1921-2020, 160k+ Tracks dataset from Kaggle
- Each song is identified by a unique id
- Info of songs
  - name, artists and released year
- Features of songs
  - acousticness, danceability, loudness, valence, energy, instrumentalness, liveness, tempo, popularity
- Songs of different languages including English, Chinese, French, etc.

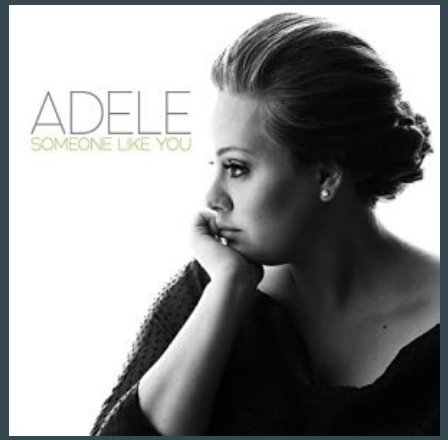
Algorithm / Model

- K-Means clustering is used to divide the datasets into 8 clusters
- Calculate the distances between each pair of songs in each cluster
- For each song, recommend the 10 closet songs in the cluster
- A silhouette score of around 0.2 is deemed appropriate for this project



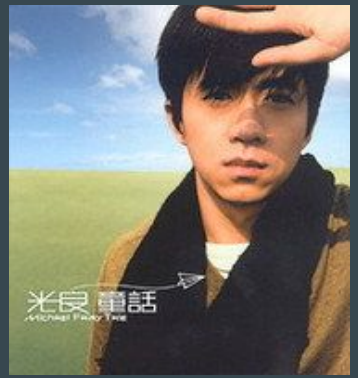
Insight

The app successfully recommends songs of different languages with similar themes



Input: Someone Like You by Adele, 2011

Recommendation 1: Un homme et une femme
(A Man and A Woman) - Song from 1966 Cannes Film Festival Palme d'Or winner Un homme et une femme



Recommendation 2: 童話 (Fairy Tale) by Michael Wong (光良), 2005

Thank You!

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