



# Spotify Api

Simple wrapper for the spotify api

## Spotify API Project

**cis1051spotify**

Clare Korbisch - Senior



## Project Goal

- Create an app that lets a user enter an artist and receive an email with a custom playlist based on that artist
  - Using Spotify's API 'Spotipy'
  - Sendgrid to email results

<https://github.com/ckorbs/cis1051spotify.git>



## Configuration

- Spotify -- Spotipy
- Spotify for Developers account located in 'commands' file
  - Created an app
    - Secret code
  - Data extraction
  - Authorizing Client Credential
- <https://spotipy.readthedocs.io/en/2.22.1/>

```
3 #SPOTIPY_CLIENT_ID = '3ac1b199205442c58e6f3ec71c505aba'  
4 #SPOTIPY_CLIENT_SECRET = '8c619b45f9a34623911712f15a1acb52'  
5 #SPOTIPY_REDIRECT_URI = 'http://localhost/'
```



## Configuration

- Trouble downloading pip
- Translating Mac to Windows commands
- Downloading pip and understanding what it is

```
(finals-env) PS C:\Users\clare\OneDrive\Documents\Python Labs\final> set SPOTIPY_CLIENT_ID =3ac1b199205442c58e6f3ec71c505aba
(finals-env) PS C:\Users\clare\OneDrive\Documents\Python Labs\final> set SPOTIPY_CLIENT_SECRET =8c619b45f9a34623911712f15a1acb52
(finals-env) PS C:\Users\clare\OneDrive\Documents\Python Labs\final> echo $SPOTIPY_CLIENT_ID
=3ac1b199205442c58e6f3ec71c505aba
```

- Terminal example of setting up Spotipy within Visual Studio Code



# Writing

- Backlog of different possibilities
- Spotify has a massive list of all possibilities for extracting desired data
- Example of finding artist information and recommended songs

<https://github.com/spotipy-dev/spotipy>

## `artist_related_artists(artist_id)`

Get Spotify catalog information about artists similar to an identified artist. Similarity is based on analysis of the Spotify community's listening history.

### Parameters:

- artist\_id - the artist ID, URI or URL

## `artist_top_tracks(artist_id, country='US')`

Get Spotify catalog information about an artist's top 10 tracks by country.

### Parameters:

- artist\_id - the artist ID, URI or URL
- country - limit the response to one particular country.



# Writing

- App allows for user input for the artist
- Then Spotify's search engine finds the artist associated with the input
- The functions use the artist's URI to return the requested results of song recommendations
- 'Class SpotifyService' is based on a tutorial from Spotify
- Full file located in 'playlist.py' file



# Writing

Returns artist and 5 song recommendations

```
def get_artist(self, artist):  
  
    result = self.spotify.search(artist)  
    artist_uri = result['tracks']['items'][0]['artists'][0]['uri']  
    return artist_uri  
  
def artist_song_recommendations(self, artist_uri):  
  
    songrecs = []  
    recs = self.spotify.recommendations(seed_artists=[artist_uri], limit = 5)  
    for track in recs['tracks']:  
        songrecs.append((track['name'], "by", track['artists'][0]['name']))  
    return songrecs
```



# Sendgrid

- Trusted email service especially with code
- Created account for email reports
- Configured the account's email address and obtained an API key to use
- API Key ID: 7Hql8t0bSyOZgz\_NoMcWRw
- Located in 'commands' file

```
final > 🐙 commands
```

```
1  #sender_address = "clarekorbs@gmail.com"  
2  #sendgrid_api_key = "SG.7Hql8t0bSyOZgz_NoMcWRw.TqgsG9nCZeDwUgUEcRIrI9HmkSp2FkRqjV_bQ_ws4"
```

- Configuration of sendgrid located in 'sendgrid.py' file





## Conclusions

- I spent a few days completely redoing everything - removing python, pip, etc from my laptop to troubleshoot the problem and met with one of the class TA's but was unable to find the issue
- Based on the simple syntax error I am assuming my pip file is saved somewhere else instead of the 'finals' folder I need it located in
- I am not sure how this would have happened/why I was unable to fix it
- Was not able to fully send the results over Sendgrid due to not being able to receive the results from Spotipy



## Conclusions

- Overall learned a ton about API's, libraries, and Python in general when completing this project but mostly when troubleshooting to really understand what was going wrong
- Was not able to properly troubleshoot code / spotipy's accuracy due to the project not working properly
- SO interesting how much you can do with spotify and possible playlist making - makes sense how they have hundreds of completely customized playlists for every user



## Project Sources

- <https://towardsdatascience.com/discovering-your-music-taste-with-python-and-spotify-api-b51b0d2744d>
- <https://medium.com/mlearning-ai/spotify-api-project-using-python-5fbcab921f5e>
  - research on different projects in beginning stages
- <https://developer.spotify.com/documentation/web-api> - to create Spotify Developers account
- <https://sendgrid.com/> - email service
- <https://www.youtube.com/watch?v=3RGm4jALukM> - authorization tutorial when troubleshooting