# Spotify Web API – Research & First Steps

## 1. Introduction

Today I explored the Spotify Web API to understand how to access real music data programmatically. This is the first step in building a Spotify Data Science internship simulation project.

## 2. Create Spotify Developer Account

1. Go to https://developer.spotify.com/dashboard and log in with a Spotify account.  
2. Click 'Create an App' and fill in the details:  
 - App Name: Spotify-DS-Simulation  
 - Description: Learning Spotify Web API for Data Science internship simulation  
3. Agree to terms and create the app.  
4. Note down the Client ID and Client Secret (keep them private).

## 3. Install Spotipy (Python Wrapper)

Spotify interns usually use Spotipy to interact with the API efficiently:  
```bash  
pip install spotipy  
```

## 4. Generate Access Token

1. Create a `.env` file with your credentials:  
```env  
SPOTIPY\_CLIENT\_ID="your\_client\_id\_here"  
SPOTIPY\_CLIENT\_SECRET="your\_client\_secret\_here"  
SPOTIPY\_REDIRECT\_URI="http://localhost:8888/callback"  
```  
2. Use Client Credentials Flow for simple access to public data.

## 5. First Python Script Example

```python  
import os  
from spotipy.oauth2 import SpotifyClientCredentials  
import spotipy  
from dotenv import load\_dotenv  
  
# Load credentials  
load\_dotenv()  
client\_id = os.getenv("SPOTIPY\_CLIENT\_ID")  
client\_secret = os.getenv("SPOTIPY\_CLIENT\_SECRET")  
  
# Auth manager  
auth\_manager = SpotifyClientCredentials(client\_id=client\_id, client\_secret=client\_secret)  
sp = spotipy.Spotify(auth\_manager=auth\_manager)  
  
# Example: Get track info  
track\_id = "3n3Ppam7vgaVa1iaRUc9Lp"  
track = sp.track(track\_id)  
  
print("Track Name:", track["name"])  
print("Artist:", track["artists"][0]["name"])  
print("Album:", track["album"]["name"])  
print("Popularity:", track["popularity"])  
```

## 6. Notes & Next Steps

- Ensure Client Secret is never shared publicly.  
- Save all API calls and responses for reference.  
- Next step: start fetching playlist and track data for analysis.

## 7. References

• Spotify Developer Dashboard – https://developer.spotify.com/dashboard  
• Spotipy Documentation – https://spotipy.readthedocs.io/  
• Spotify Web API Reference – https://developer.spotify.com/documentation/web-api/