



SpotiPy Downloader

~ Downloads Spotify playlist and returns zip file as Google Drive link.

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Introduction

Music is something that all people love to listen to in their leisure time and even while doing the daily chores. People claim that listening to music brings them to peace and helps them concentrate in some cases. But being interrupted by advertisements while you are vibing is pretty annoying. Just imagine you are on your morning walk listening to your favourite playlist and suddenly a person starts saying “Me, and the band have known each other since we were kids...” ; annoying right?

Well this is exactly what happens when you are listening to music on the most well known music streaming platform ‘Spotify’ and our app is here to help you out!

Objective and Significance

The idea for the web application is to download a set of songs in which the number of songs to be downloaded from the Spotify playlist is specified by the user through a web form.

We benefit our users in the following ways:

- No advertisements
- No internet is required to listen songs
- Highest quality audio is delivered
- Songs are delivered in the universal audio format - mp3
- No advertisements/bloatware on the web platform
- Simple and clean user interface
- No limits to downloads and number of songs

All of the above features are also provided by Spotify on their platform but one at a cost. One needs to subscribe to their Premium plan however our service involves no charges or transactions. All user data (email address) is stored in a secure cloud MongoDB Atlas database.

Working

The application's primary data input is a Spotify playlist link and the user's email address. The deliverable is a Google Drive link containing a zipped file having all the songs in mp3 format.

The application involves the following steps:

- The user inputs the link of the playlist
- The song data is extracted by using the Spotify Web API in the form of {Song - Artist}
- The data returned from the API is formatted and searched for on YouTube.
- The required song is downloaded from YouTube in mp3 format.
- All mp3 files are packed in one zip file to reduce the size.
- Zip file is uploaded on a secure Google Drive folder and a shareable link is generated.
- The generated link is mailed to the user.

Scope

- This web application is meant for all those people who are tired of listening to advertisements and facing interruptions due to bad network or unavailability of network at some times.
- Our application doesn't target any specific age group as music is for everyone and all people love to listen to it.
- The web application can be easily used by technologically challenged people as the user interface is extremely simple and clean.

Tools and Technology

Language - Python 3.7

Development environment - Visual Studio Code and Anaconda

Database - MongoDB Atlas

API - Spotify, Google Drive v3

Modules and Packages -

- Flask : Web framework
- pymongo : Connection with MongoDB Atlas
- requests : Communication with Spotify API to get music data
- youtube-search : Fetch exact url for the required song
- youtube-dl : Downloads the required song
- os : File and directory management before upload
- zipfile : Pack all songs in one zip file
- pydrive : Wrapper to communicate with GDrive v3 API for uploads
- smtplib : Email the link for the file

Reference and Bibliography

Spotify API :  [30 Days of Python - Day 19 - The Spotify API - Python TUTORIAL](#)

Flask :  [Flask Tutorial #1 - How to Make Websites with Python](#)

pymongo :  [Python MongoDB Tutorial using PyMongo](#)

Other sources involve bug fixes and references from [StackOverflow](#), [GeeksforGeeks](#), [CodePen](#) and similar platforms.