

# Deezer Album Tracker

This script uses the deezer public api to provide a list of albums released the past half year of artists in the configuration file. Configuration file will be created if it doesn't exist. Adding/removing artists can be done using command line options. The output can be emailed for easy use from cron with customisable subject line.

Depending on network speed and amount of albums per artist and due to deezer API rate limit of max 50 requests per 5 seconds, querying 180 days for 235 artists takes about 1:45 minutes.

Prerequisites for fuzzy search:

```
pip install fuzzywuzzy
```

Usage:

```
usage: dat.py [-h] [--list] [--days DAYS] [--add ARTIST_NAME] [--delete SEARCH_TERM] [--email]
```

Deezer Album Tracker

options:

|                      |                                  |
|----------------------|----------------------------------|
| -h, --help           | show this help message and exit  |
| --list               | List all monitored artists       |
| --days DAYS          | Amount of days to list           |
| --add ARTIST_NAME    | Add a new artist                 |
| --delete SEARCH_TERM | Delete an artist by fuzzy search |
| --email              | Email the output                 |

Example output:

```
$ ./dat.py --days 7
Albums released in the past 7 days:
Release Date: 2024-03-29
Artist: Beyoncé
Album Name: COWBOY CARTER
Link: https://www.deezer.com/album/565889181

Release Date: 2024-03-29
Artist: KALEO
Album Name: Lonely Cowboy
Link: https://www.deezer.com/album/560928422

Release Date: 2024-03-29
Artist: Lauren Daigle
Album Name: Be Okay
Link: https://www.deezer.com/album/563282112
```

Example config file:

## config.json

```
{
  "global": {
    "days": 180
  },
  "email": {
    "smtp_server": "emailserver",
    "smtp_port": 587,
    "sender_email": "emailaddress",
    "sender_password": "password",
    "email_recipients": [
      "email1@googlemail.com",
      "email2@googlemail.com"
    ],
    "email_subject": "Deezer Album Tracker"
  },
  "artist_ids": {
    "89": "Papa Roach",
    "566": "Foo Fighters",
    "93": "Limp Bizkit",
    "1070": "Puddle of Mudd",
    "373": "Staind"
  }
}
```

To add artists in bulk, the simplest way is to create a text file with an artist on each line, then use the following bash command to let dat.py search deezer for the id and add it to the config file:

```
while read p; do ./dat.py --add "$p"; done <artists.txt
```

## dat.py

```
#!/usr/bin/python
import ssl
import smtplib
from email.mime.multipart import MIMEMultipart
from email.mime.text import MIMEText
import requests
import json
from datetime import datetime, timedelta
import time
import argparse
from fuzzywuzzy import fuzz
from fuzzywuzzy import process
import os

# Constants for file paths
CONFIG_FILE = "config.json"
```

```
def load_config():
    if not os.path.exists(CONFIG_FILE):
        # Create default config file if it doesn't exist
        default_config = {
            "global": {
                "days": "180"
            },
            "email": {
                "smtp_server": "smtp.example.com",
                "smtp_port": 587,
                "sender_email": "sender@example.com",
                "sender_password": "password",
                "email_recipients": ["recipient1@example.com",
"recipient2@example.com"],
                "email_subject": "Deezer Album Tracker"
            },
            "artist_ids": []
        }
        with open(CONFIG_FILE, "w") as config_file:
            json.dump(default_config, config_file, indent=4)

    with open(CONFIG_FILE, "r") as config_file:
        return json.load(config_file)

def save_config(config):
    with open(CONFIG_FILE, "w") as config_file:
        json.dump(config, config_file, indent=4)

def send_email(body):
    config = load_config()
    email_config = config.get('email', {})
    if not email_config:
        print("Email configuration not found in config file.")
        return

    smtp_server = email_config.get('smtp_server')
    smtp_port = email_config.get('smtp_port')
    sender_email = email_config.get('sender_email')
    sender_password = email_config.get('sender_password')
    email_subject = config.get('email_subject', 'Deezer Album Tracker')

    msg = MIMEMultipart()
    msg['From'] = sender_email
    msg['To'] = ', '.join(email_config.get('email_recipients'))
    msg['Subject'] = f"{email_subject} - {datetime.now().strftime('%Y-
%m-%d')}}"

    body = MIMEText(body)
    msg.attach(body)
```

```
# Use TLS
context = ssl.create_default_context()

with smtplib.SMTP(smtp_server, smtp_port) as server:
    server.ehlo() # Can be omitted
    server.starttls(context=context)
    server.ehlo() # Can be omitted
    server.login(sender_email, sender_password)
    server.send_message(msg)

def get_artist_name(artist_id):
    url = f"https://api.deezer.com/artist/{artist_id}"
    response = requests.get(url)
    if response.status_code == 200:
        data = response.json()
        return data.get('name', '')
    return ''

def get_artist_id(artist_name):
    url = f"https://api.deezer.com/search/artist?q={artist_name}"
    response = requests.get(url)
    if response.status_code == 200:
        data = response.json()
        for artist in data.get('data', []):
            if fuzz.token_sort_ratio(artist_name, artist['name']) >=
90:
                return artist['id']
    return None

def get_albums(artist_ids, lookupdays):
    base_url = "https://api.deezer.com/artist/{}/albums"
    earliest_release = (datetime.now() -
timedelta(days=lookupdays)).strftime('%Y-%m-%d')
    albums = []
    request_count = 0
    start_time = time.time()

    today = datetime.today().strftime('%Y-%m-%d')

    for artist_id in artist_ids:
        url = base_url.format(artist_id)
        response = requests.get(url)
        request_count += 1
        if response.status_code == 200:
            data = response.json()
            artist_name = get_artist_name(artist_id)
            for album in data['data']:
                release_date = datetime.strptime(album['release_date'],
'%Y-%m-%d')
                if datetime.strptime(earliest_release, '%Y-%m-%d') <=
```

```

release_date <= datetime.strptime(today, '%Y-%m-%d'):
    albums.append({
        'artist': artist_name,
        'album_name': album['title'],
        'release_date': album['release_date'],
        'explicit_lyrics': album['explicit_lyrics'],
        'link': album['link'],
        'cover_small': album['cover_small'],
        'cover_medium': album['cover_medium'],
    })

    # Deezer rate limit is 50 requests / 5 seconds. Limiting to
    40/5 here:
    # Check if 40 requests have been made in less than 5 seconds
    if request_count == 40:
        elapsed_time = time.time() - start_time
        if elapsed_time < 5:
            time.sleep(5 - elapsed_time)
        # Reset request count and start time
        request_count = 0
        start_time = time.time()

    return sorted(albums, key=lambda x: x['release_date'],
reverse=True)

def list_artists():
    config = load_config()
    subscribed_artists = config.get('artist_ids', {})
    sorted_artists = dict(sorted(subscribed_artists.items(), key=lambda
item: item[1].casefold()))
    for artist_id, artist_name in sorted_artists.items():
        print(f"{artist_name} ({artist_id})")

def add_artist(artist_name):
    config = load_config()
    artist_id = get_artist_id(artist_name)
    if artist_id:
        artist_name_from_api = get_artist_name(artist_id) # Fetch
artist name from Deezer API
        config['artist_ids'][artist_id] = artist_name_from_api # Add
artist name to config
        save_config(config)
        print(f"Artist '{artist_name_from_api}' added successfully.")
    else:
        print("Artist not found.")

def delete_artist(search_term):
    config = load_config()
    subscribed_artists = config.get('artist_ids', {})

    choices = process.extract(search_term, subscribed_artists.values(),

```

```
limit=5)
    print("Fuzzy search results:")
    for index, (artist_name, score) in enumerate(choices):
        print(f"{index + 1}. {artist_name} ({score})")
    choice_index = int(input("Enter the number of the artist to delete:
")) - 1
    if 0 <= choice_index < len(choices):
        artist_name = choices[choice_index][0]
        artist_id = [key for key, value in subscribed_artists.items()
if value == artist_name][0]
        del config[artist_id]
        save_config(config)
        print(f"Artist '{artist_name}' deleted successfully.")
    else:
        print("Invalid choice.")

def main():
    parser = argparse.ArgumentParser(description="Deezer Album
Tracker")
    parser.add_argument("--list", action="store_true", help="List all
monitored artists")
    parser.add_argument("--days", metavar="DAYS", help="Amount of days
to list")
    parser.add_argument("--add", metavar="ARTIST_NAME", help="Add a new
artist")
    parser.add_argument("--delete", metavar="SEARCH_TERM", help="Delete
an artist by fuzzy search")
    parser.add_argument("--email", action="store_true", help="Email the
output")

    args = parser.parse_args()

    if args.list:
        list_artists()
    elif args.add:
        add_artist(args.add)
    elif args.delete:
        delete_artist(args.delete)
    else:
        config = load_config()
        artist_ids = config.get('artist_ids', [])
        if args.days:
            lookupdays = int(args.days)
        else:
            lookupdays = config.get('global', {})[ 'days' ]
        albums = get_albums(artist_ids, lookupdays)

        print(f"Albums released in the past {lookupdays} days:")
        for album in albums:
            print("Release Date:", album['release_date'])
```

```
print("Artist:", album['artist'])
if album['explicit_lyrics'] == 'true':
    print("Album Name:", album['album_name'], "[EXPLICIT]")
else:
    print("Album Name:", album['album_name'])
print("Link:", album['link'])
print()

if args.email:
    email_body = f"Albums released in the past {lookupdays}
days:\n\n"+" \n".join([f"Release Date: {album['release_date']}\nArtist:
{album['artist']}\nAlbum Name: {album['album_name']}\nLink:
{album['link']}\n" for album in albums])
    send_email(email_body)

if __name__ == "__main__":
    main()
```

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