

TP1 – Parte 1

Explorando as músicas do Spotify de 2023

Trabalho pode ser feito individualmente ou em dupla.

Uma base de dados (dataset) contém as músicas mais tocadas no Spotify em 2023. Para cada música guardaram as seguintes informações:

- **track_name:** *Name of the song*
- **artist(s)_name:** *Name of the artist(s) of the song*
- **artist_count:** *Number of artists contributing to the song*
- **released_year:** *Year when the song was released*
- **released_month:** *Month when the song was released*
- **released_day:** *Day of the month when the song was released*
- **in_spotify_playlists:** *Number of Spotify playlists the song is included in*
- **in_spotify_charts:** *Presence and rank of the song on Spotify charts*
- **streams:** *Total number of streams on Spotify*
- **in_apple_playlists:** *Number of Apple Music playlists the song is included in*
- **in_apple_charts:** *Presence and rank of the song on Apple Music charts*
- **in_deezer_playlists:** *Number of Deezer playlists the song is included in*
- **in_deezer_charts:** *Presence and rank of the song on Deezer charts*
- **in_shazam_charts:** *Presence and rank of the song on Shazam charts*
- **bpm:** *Beats per minute, a measure of song tempo*
- **key:** *Key of the song*
- **mode:** *Mode of the song (major or minor)*
- **danceability_%:** *Percentage indicating how suitable the song is for dancing*
- **valence_%:** *Positivity of the song's musical content*
- **energy_%:** *Perceived energy level of the song*
- **acousticness_%:** *Amount of acoustic sound in the song*
- **instrumentalness_%:** *Amount of instrumental content in the song*
- **liveness_%:** *Presence of live performance elements*
- **speechiness_%:** *Amount of spoken words in the song*

Faça um programa que leia esta base de dados. Crie as estruturas necessárias para armazenar estes dados em memória principal toda vez que o arquivo for lido. Observe que neste momento não estamos preocupados com o tamanho do arquivo.

Fonte do dataset: <https://www.kaggle.com/datasets/nelgiriyeewithana/top-spotify-songs-2023/data>