**Spotify Wrapped Web Application**

As our project we created a web app which enables you to have an insight into the details of your listening statistics. It shows you a recap of the past few months of your listening habits.

In the first view you need to enter general information such as name and age and then upload one or more files with your streaming history. After pushing the button ,,upload” you will be redirected to the main page where form the menu you can choose from the following views:

**General statistics**

Here you can see:

* how long have you been listening to music this year
* how many songs and artists have you listened to
* your top 5 favourite artists and songs in general
* your top 5 songs you used to listen to in the morning and in the evening
* photo of your favourite artist and information about the amount of time you have devoted to listening to this person music
* your top 5 songs of your favourite artist
* an interactive plot depicting your attachment to listened songs
* a plot illustrating your listening activity depending on the week of the year

**Detailed information**

Consisting of data such as:

* a line and polar charts showing the specifics of the songs you have listened to
* 6 songs having respectively the highest danceability, energy, tempo, acousticness, loudness and instrumentalness

**Recommendations**

Showing you:

* 5 songs and album cover photos you have enjoyed listening to
* 5 songs with album cover photos we recommend you listen to basing on your music taste

**Database**

Using SQLite we created a database consisting of 5 tables namely: Users, Streaming\_data, Artists, Songs and Song\_features.

The **Users** table contains data such as User\_Id, Name and Age, where User\_Id is uniqu number, which is randomly generated slightly after user enters the page for the first time.

The **Streaming\_data** table comprises data related to listening history of the user. It includes User\_Id, Song\_Id, Artist\_Id, end\_time and ms\_Played. The two lattest records are respectively time when stream of a particular song was ended and how many miliseconds the track was listened to. The table is being completed while in the first view user is asked to upload files with a streaming history. The User\_Id is foreign key linking this table to Users table. The relationship between those two tables is one to many since one user uploads a many Streaming\_data record. The Song\_ID ia also a foreign key, which associates this table with Songs table having one to many relationship, because one song might be played many times and every time is saved as one streaming record. What is more this table is also connected to Artits table by an Artist\_ID column. The relationship between them is on-to-many considering that one artist can appeared many times in a Streaming\_data table being connected to different streaming records.

The **Artist** table is filled with Artist\_name and Artist id columns.

The **Songs** table includes Song\_ID, Artist\_ID and Song\_name columns, where Artist\_ID is a foreign key in the Artist\_table. It is connected to Artists table with a relationship one-to-many since one Artist can sing many songs.

The **Song\_features** is a table consists of Song\_ID, Daneability, Energy, Loudness, Speachiness, Acousticness, Instrumentalness, Liveness, valence and Tempo columns, which characterize songs the user has listened to.

Diagram

Description automatically generated