Deliverable 2

1 Introduction

In this document we'll explore more about our website which is centered around music worldwide. Inside, you'll find sketches of the visuals we plan to create, screenshots from our current website, list of the tools and lectures we've used, and some extra ideas to consider.

2 Screenshots and sketches

1. Music taste similarities: when you click on a country, the other countries colors will change depending on whether they have a similar taste in music to the selected country or not. The similarity is calculated based on the current countries top songs.

   In this screenshot you can see an example of this visualization when Canada is selected. On the right, we will have a list of the current top 50 songs in the selected country.

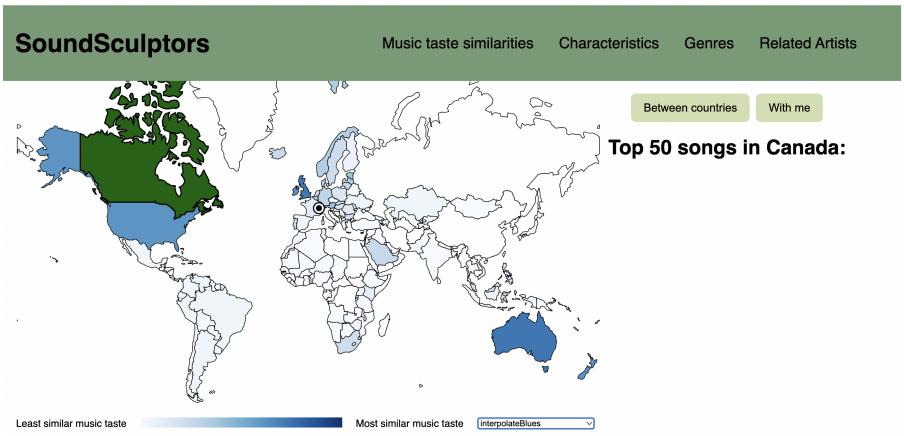

Figure 1: Music taste similarities with Canada

2. Top songs characteristics: when you click on a country, a radar graph will appear on the right of the map giving information about the average of some features of the 50 top songs in this country. The features are: danceability, speechiness, energy, acousticness, tempo and duration in ms. At this stage, the interaction feature is not implemented yet, so when you click on "Characteristics" you will see a static radar graph that doesn't change depending on the country.

   Here is an example of a radar graph using dummy data:

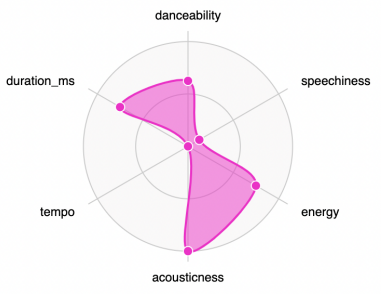

Figure 2: Characteristics of the 50 top songs in a selected country

3. Music genres: when you click on a country, a bar chart will appear on the right of the map with the top genres of the top 50 songs in the selected country.

   Here is a sketch of this visualization:

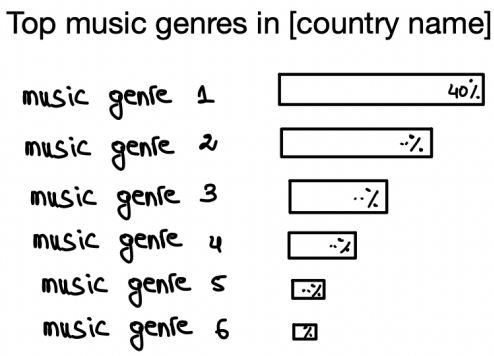

Figure 3: Top music genres bar chart sketch

4. Related artists: this visualization will not be related to the world map. It is a big graph where each node represents an artist and there is an edge between two artists if they are similar. The user will be able to type the name of an artist and the corresponding node will be highlighted. When you select a node you will be able to see information about the artist (number of followers, number of streams, etc).

   Here is a sketch of this visualization:

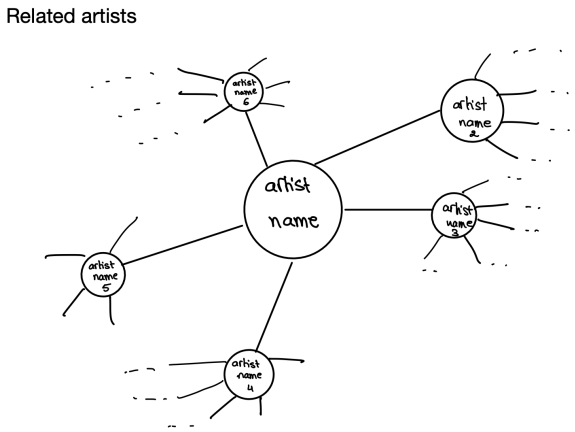

Figure 4: Graph of related artists sketch

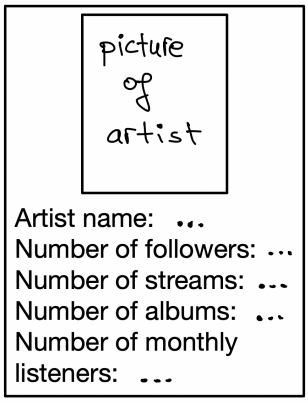

Figure 5: Artist info sketch

3 Tools and lectures

For the **back-end** we are using Python to extract the information we need from the Spotify API. The libraries we are using are: spotipy, flask and country-converter. For the **front-end** visualizations we are using Svelte and CSS. The **lectures** we are using are: Data, Maps and Graph visualization.

4 Extra ideas

1. Compare top songs characteristics: for the second visualization described above, we would like to be able to select more than one country at a time to visualize the difference in top songs features between different countries.
2. Personalized taste music similarities: we would like to include the option of visualizing the countries that have similar taste to the user. For that, the user of the website would have to login with their Spotify credentials.
3. Listen to the current top song: we would like to add a button which would allow the user to listen to the current top song when clicking on a country.