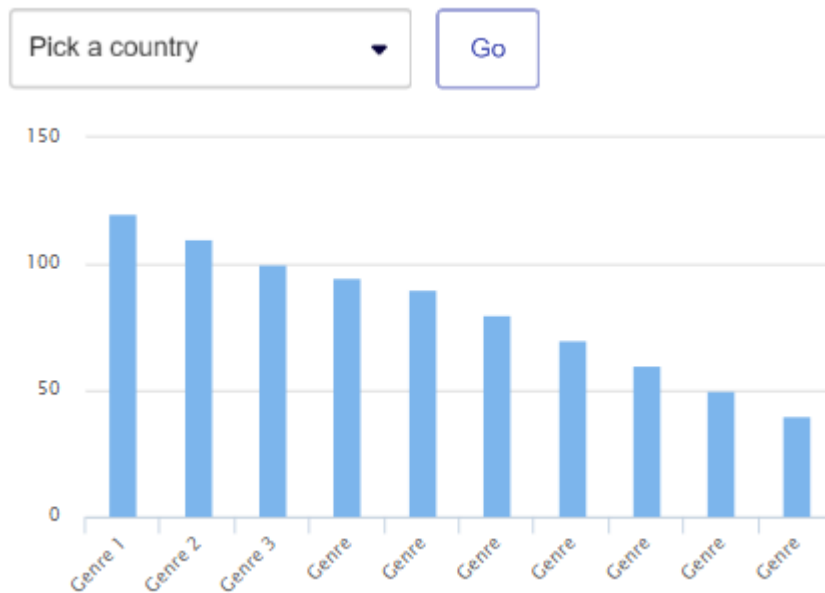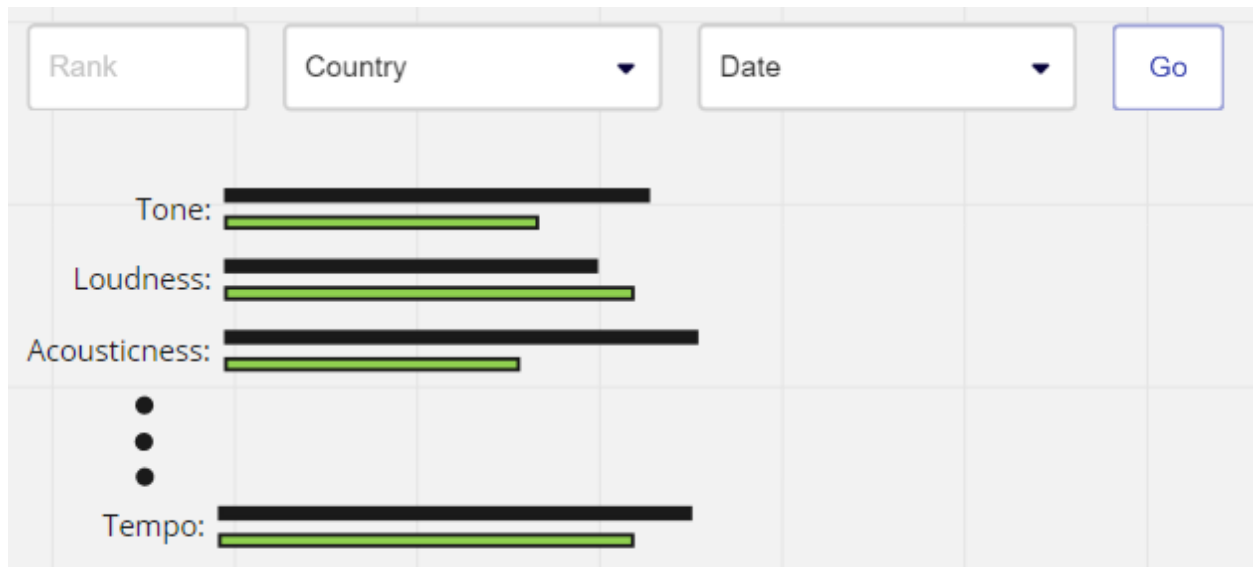Sprint 4 Artifact

Members: Thet Zaw , Marco Baez Pulido , Jessie Lu , George Orduno Galicia ,
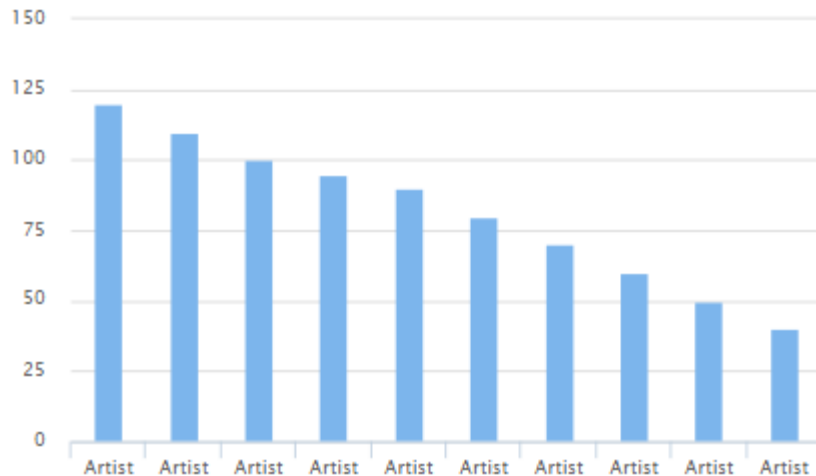Yong Hwei Toon

Features:
- **Feature 1**: Compare the characteristics of a song in the chart to the chart's average
- **Feature 2**: Which are the top 10 most popular genres by country
- **Feature 3**: Which 10 artists have the most top 10 songs

GUI design:
Feature 1:

Feature 2:

Feature 3:

Test cases:
- **Feature 1 Test Cases**: Compare the characteristics of a song in the chart to the chart's average
    - **Test Case 1**: The user chooses a song by inputting a rank, country, and date. The song is compared to the rest of the songs from the chart that the song is from.
    Correct Output: The chart displays the average song characteristics above the characteristics of the song picked by the user
    - **Test Case 2**: The user doesn't input rank, country, or date
    Correct Output: The chart doesn't update and alert the user with an error message
- **Feature 2 Test Cases**: Which are the top 10 most popular genres by country
    - **Test Case 1**: The user picks a country and click go
    Correct Output: The chart displays the top 10 most popular genres for that country

To-do list:
Done list of last sprint
- GUI to update/insert/delete a song
    - [finished by Thet Zaw and verified by everyone]
- GUI to import/backup the data
    - [finished by Thet Zaw and verified by everyone]
- Backend method to delete song from chart
    - [finished by David and Marco and verified by everyone]
- Backend method to insert and update song from chart
    - [finished by David and verified by everyone]
- Backend method to update chart without refresh
    - [finished by Thet Zaw and verified by everyone]
- Backend method import/backup data

- [finished by Marco and verified by everyone]

To-do for next sprint
- Backend method for feature 1
    - Acceptance criteria: The method correctly calculates the average of the characteristics and returns it
- Backend method for feature 2
    - Acceptance criteria: The method correctly calculates the top 10 popular genres
- Backend method for feature 3
    - Acceptance criteria: The method correctly calculates the top 10 artists
- UI to display feature 1
    - Acceptance criteria: The user can input a rank, country, and date and click go. The chart updates with the correct information.
- UI to display feature 2
    - Acceptance criteria: The user can choose a country and click go. The chart updates with the correct information.
- UI to display feature 3
    - Acceptance criteria: The chart displays the correct information.
- Connect backend and frontend
    - Acceptance criteria: Frontend can request from the backend and backend can send to frontend