Moodifly

Music Tailored to You

Developer

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Contents

Version & Release Notes

V1.0.0	First Release	7/15/2021
V1.1.0	Code Refactor & Style Change	8/3/2021

Project Description

The purpose of this project is as follows:

The ultimate goal of Moodifly is to provide personalized music tailored to the user's mood, which is not a feature readily available in major music platforms. Moodifly utilizes recent listening history, text input, and emoji to gauge the user's mood.

The description of the project is as follows:

Moodifly makes personalized music recommendations based on the user's mood.

1. Main Page

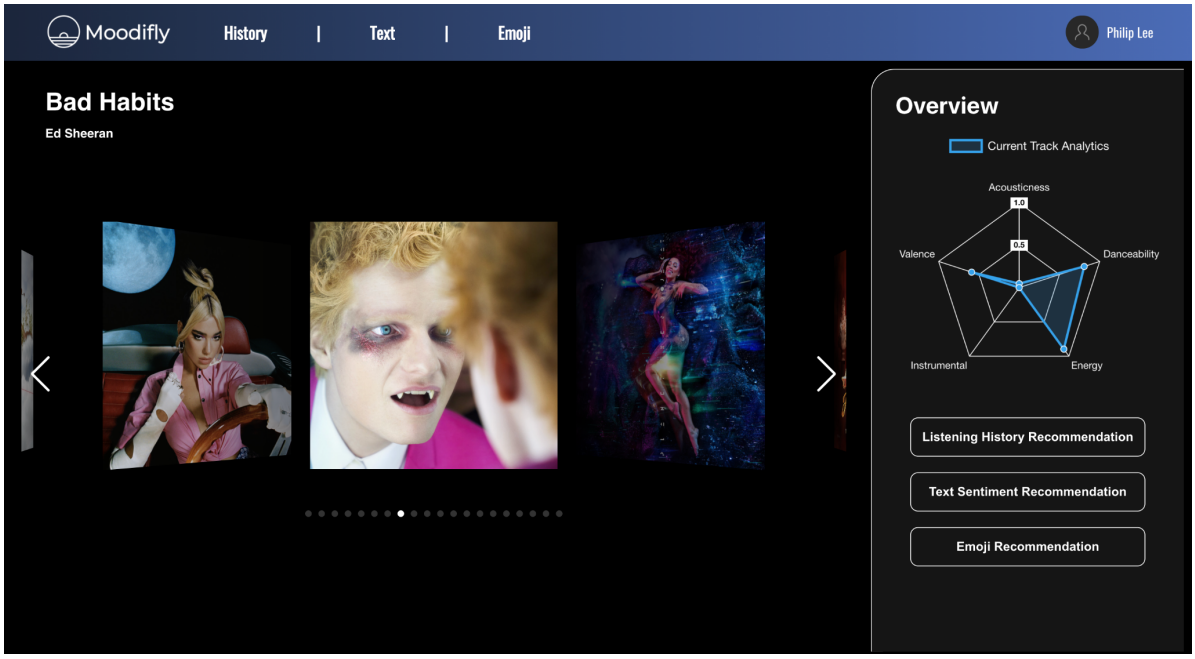

Figure 1. Main Page

- Trackgrid contains user's top tracks, including 30 second preview for each song
- Radar chart visualizes the data of both the track analysis of the user's top tracks as well as the song that is currently playing

2. Listening History Based Recommendation

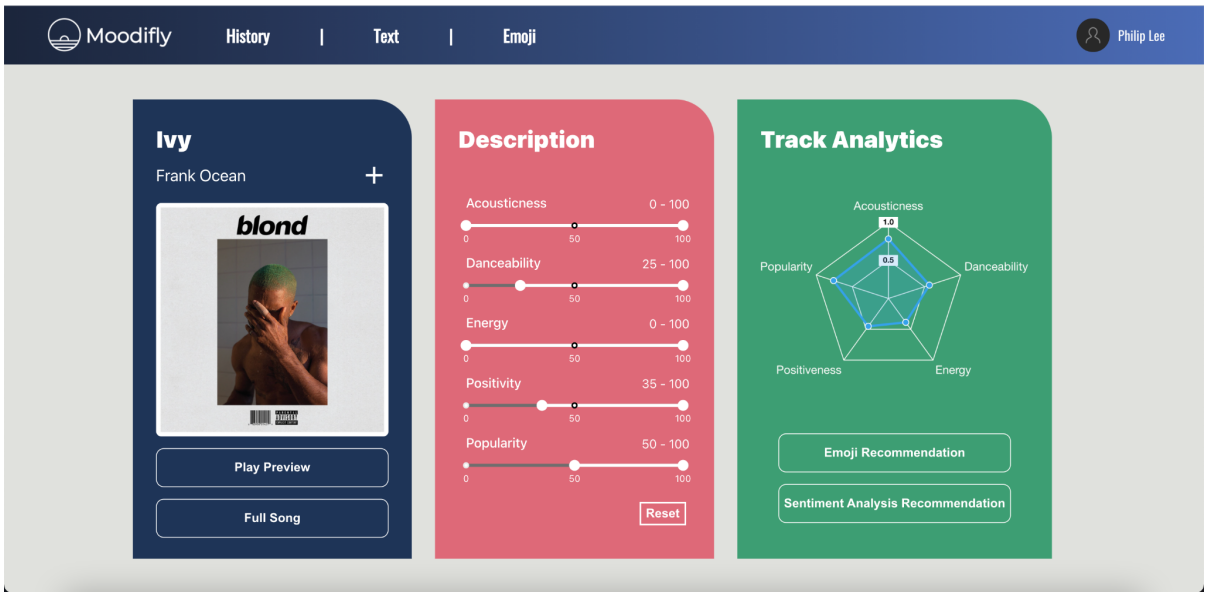

Figure 2. Listening History Based Recommendation Page

- Personalized songs based on user's recent listening history
- Provides sliders that users can use to filter track features such as popularity and danceability to discover new songs
- Users able to listen to a 30 second preview of the recommended song as well as save the song
- Radar chart visualizes the track analytics of the recommended song

3. Text Sentiment Analysis Based Recommendation

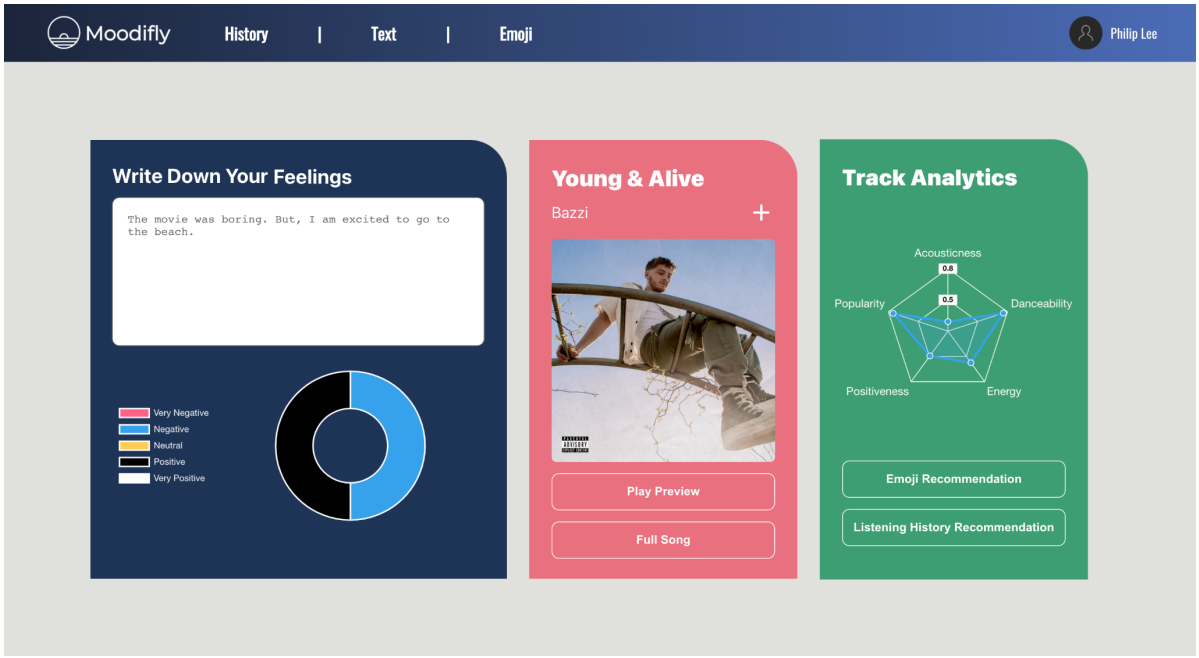

Figure 3. Text Sentiment Analysis Based Recommendation Page

- Recommendation made based on the user's text input that contains the user's thoughts, feelings, and so on
- Provides donut chart that contains the sentence-by-sentence sentiment analysis
- Uses Stanford CoreNLP for sentiment analysis
- Users able to listen to a 30 second preview of the recommended song as well as save the song
- Radar chart containing the track analytics of the recommended song

4. Emoji Based Recommendation

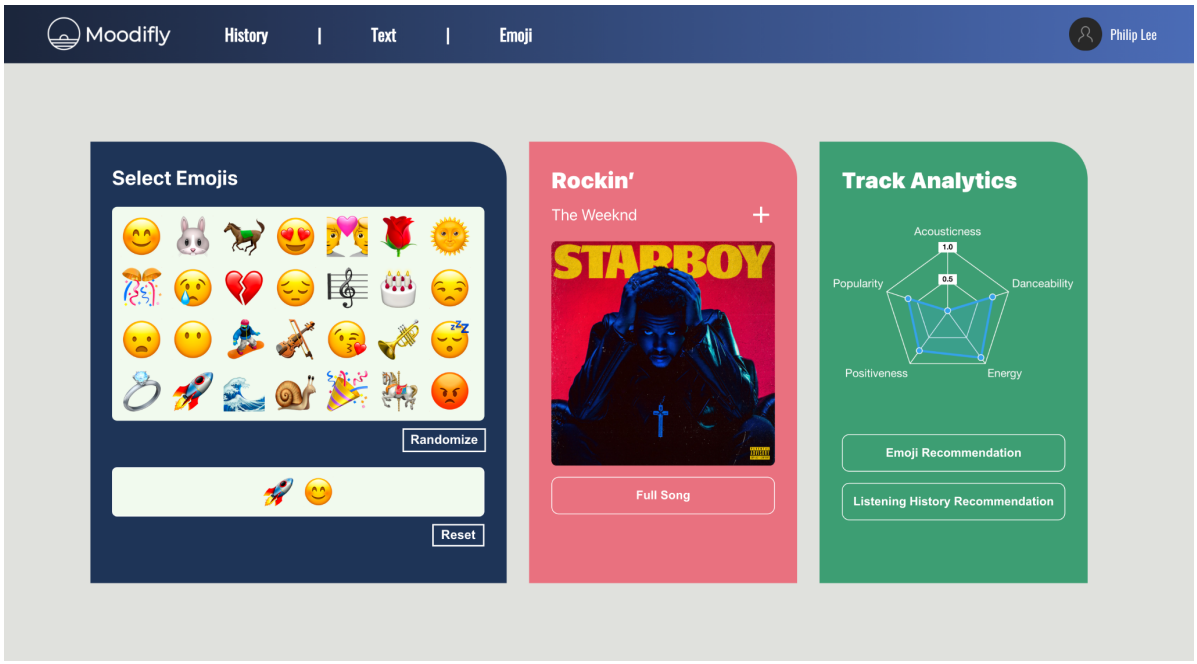

Figure 4. Emoji Based Recommendation

- Personalized songs based on the user's selection of a single or chain of emojis
- Recommendation algorithm utilizes the sentiment of each emoji
- Users able to listen to a 30 second preview of the recommended song as well as save the song
- Radar chart containing the track analytics of the recommended song

Programming Environment

Service Architecture

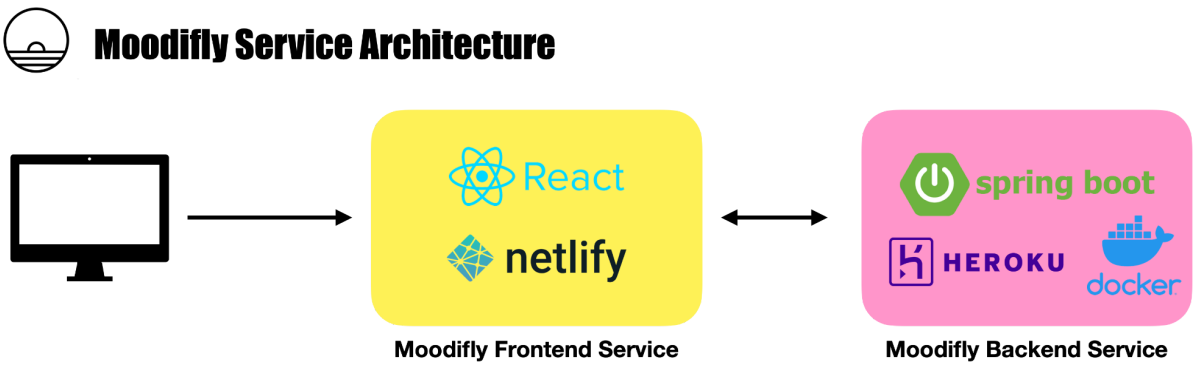

Figure 4. Moodifly Service Architecture

Moodifly is composed of the frontend, which is capable of the visualization of data and music recommendation based on user mood analysis, and the backend, which contains the logic behind the recommendation algorithm. Frontend hosting is done through Netlify and deployed using its CI/CD pipeline. Backend is deployed with Heroku.

Software Stack

Frontend

Stack	Version & Information
React	17.0.2
NPM	7.18.1
Node.js	14.16.0

Backend

Stack	Version & Information
Spring Boot	2.5.2
Java	11

Resources

The Request for Proposal timeline is as follows:

Type	Link
Repository	Moodifly Frontend Repository
Documents	Moodifly Development Documents