




SHUFFLE+



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What this app does

Provides more options for playlist shuffling than are typically provided

Offers users a variety of different shuffling algorithms and allows them to specify shuffling criteria



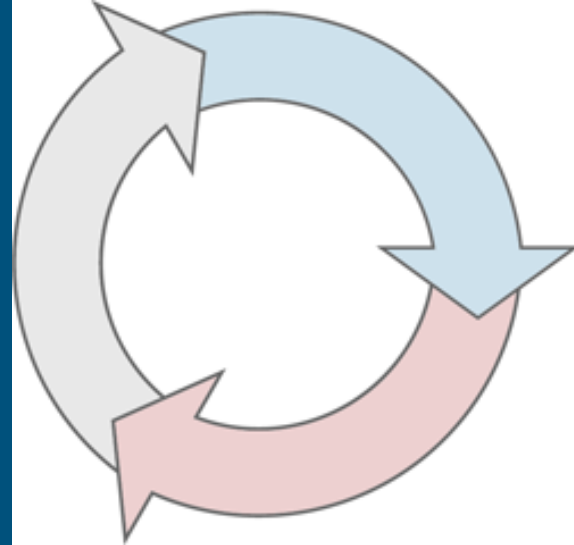
TOOLS


| NAME | PURPOSE | RANKING (Out of 5) |
|--------------------------------|--------------------|--------------------|
| Trello | Project tracking | 4 |
| Github | VCS | 5 |
| Nodejs | Web App Framework | 5 |
| Mocha | JS Unit Test Suite | 5 |
| JSDoc | Auto-Doc Tool | 3 |
| Spotify developer API | API | 2.5 |
| Various code development tools | Code Development | 4 |



Methodologies Used

Iterative
Pair programming
Peer code reviews





Shuffle Algorithms

Random

Shuffle tracks uniformly randomly

Based on Fisher-Yates shuffle algorithm

Can create strings of songs with the same artist or from the same album which is undesired by many users



Spread

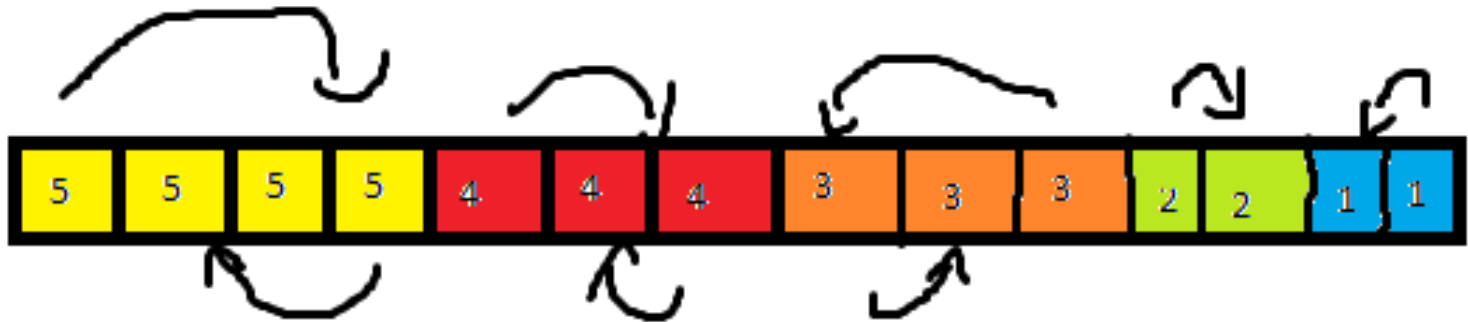
Spreads songs by the same artist/from the same album/etc apart from one another
Similar to the algorithm used by Spotify



Biased

Allows the users to rank tracks by title, artist, album, or explicit status

Shuffles tracks of the same rank



Challenges Encountered

Had to find work-arounds for spotify's limited API

Weren't able to implement our original vision due to limitations from Spotify

Needed to learn some programming languages which limited development at the beginning of project development

Limitations

Weren't able to implement our original vision due to limitations from Spotify

Seems to be an upper limit on playlist sizes the app can handle

Can only use user created playlists

Moving Forward/Future Developments

Database

- Tracker for number of times a song has played

- Save some user rankings

- Save where user left off in a playlist so that they can leave and resume from the same place

- Tie in future Spotify API developments

- Allow users to rank by more than one category at a time

- Mobile app

Project Demo

