Spotify

Team 2
Project 3

AGENDA

- Team introductions
- Project Background
- Spotify API
- Data ethics review & considerations
- Data model
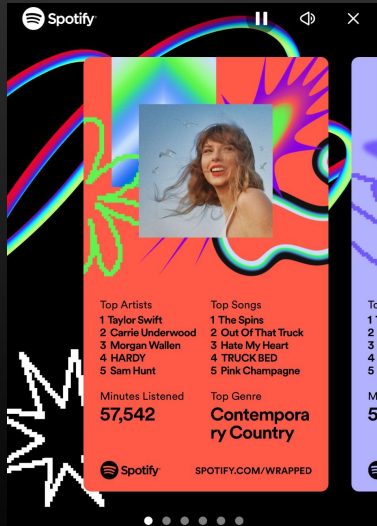- Dashboard review
- Conclusions

Meet Team 2

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PROJECT BACKGROUND & CONCEPT

In late November, Spotify issues "Spotify Wrapped" for each of its platform users that give insights into what you've listened to for the previous year. Users love the recaps and often share them on social media platforms, which helps promote the music streaming service to non users. However, Wrapped only covers the previous year, and a lot of users request they'd like to see their Year-over-Year data or to see monthly listening data

Project Concept:

- Build dashboard that provides views of Spotify listener data

- Access Spotify API to extract listener data

- Dashboard to include interactivity that provides insights on Top Artists and Songs listened to over time

Accessed Spotify API documentation to find what user listening data can be extracted and shared in a user Dashboard
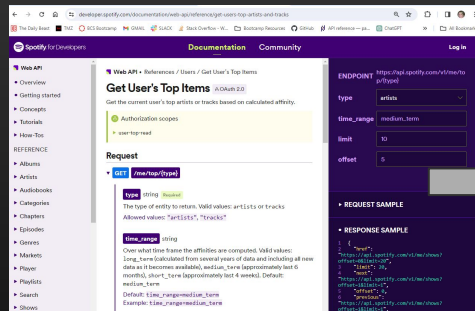
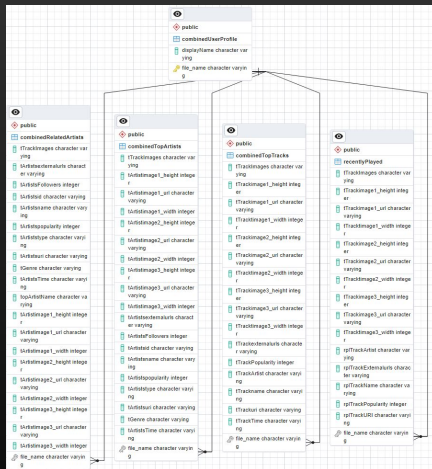| Listening Category	Time Frame	Metadata
Recently Played Artists & Songs	● Last 7 days	● Song name ● Artist name ● artist image ● Song popularity ● Link to song in Spotify
Top Artists	● Short Term (last 4 weeks) ● Medium Term (last 6 months) ● Long Term (all time)	● Artist name ● artist image ● artist popularity ● link to artist in Spotify ● artist genre ● artist followers
Top Songs	● Short Term (last 4 weeks) ● Medium Term (last 6 months) ● Long Term (all time)	● Song name ● artists name ● artist image ● song popularity ● link to song in Spotify

Data Ethics Review & Considerations

Data Privacy	Spotify Brand Guidelines	Artist Intellectual Property
● Access to data via API required consent from user profile it was pulled from, so javascript code included user authorization to gain permission	● Adhered to strict Brand guidelines around logo use, attribution, links to Spotify app, etc.	● Spotify's business model includes negotiations with artists on how their names, likeness, and music are shared in platform and by apps using Spotify services
● Data storage in database included design to keep user name (PII) separate from listener data in order to protect user privacy		● Dashboard was designed to adhere to artist guidelines for song names, artist names, artist images (required to be displayed without alteration, filters or overlays), etc.

Data model included extracting data from Spotify API into SQLite database in order to load data into the HTML/Javascript of GitHub Pages

Spotify API

- Express.js & Node.js to handle authentication & proxy requests to the Spotify API

SQLite

- Loaded API data into SQLite database
- Exported static JSON file of data to use in GitHub Pages
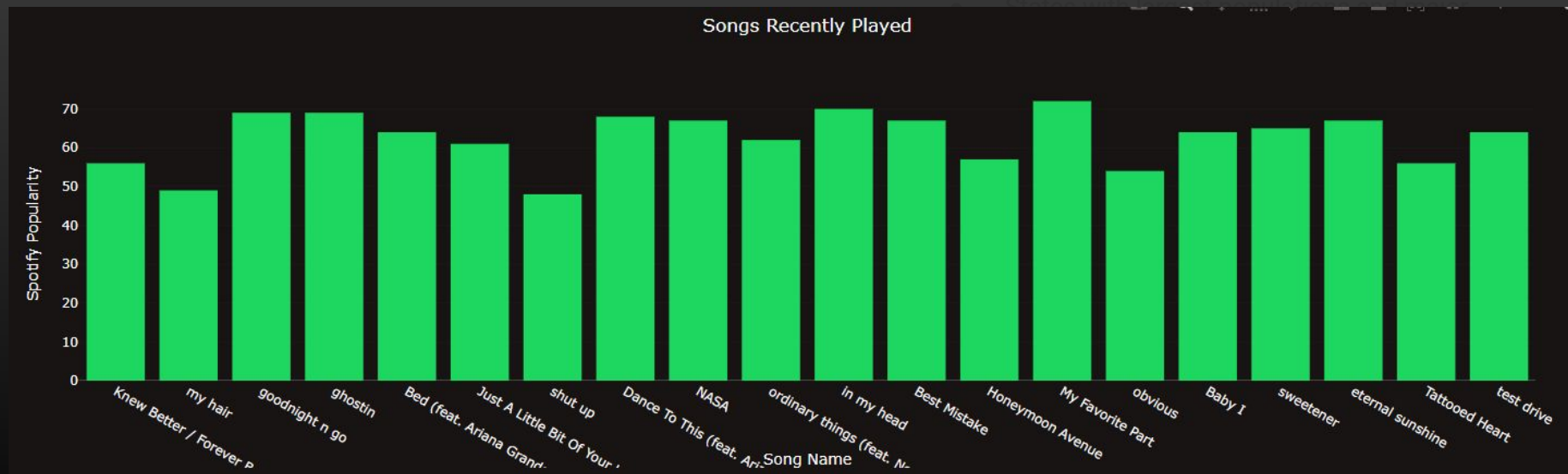
GitHub Pages

- Charts: Plotly
- CSS: Bootstrap

Dashboard Review

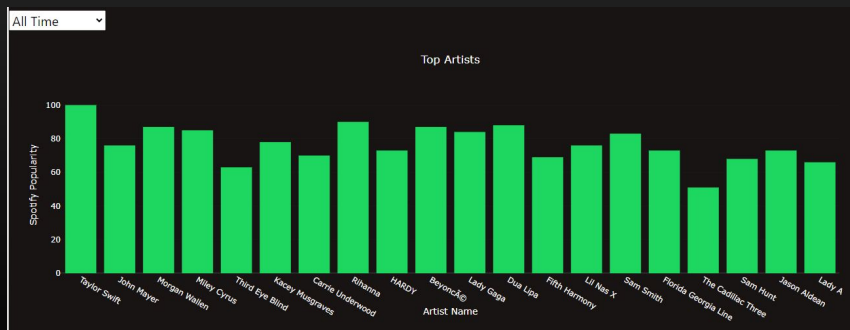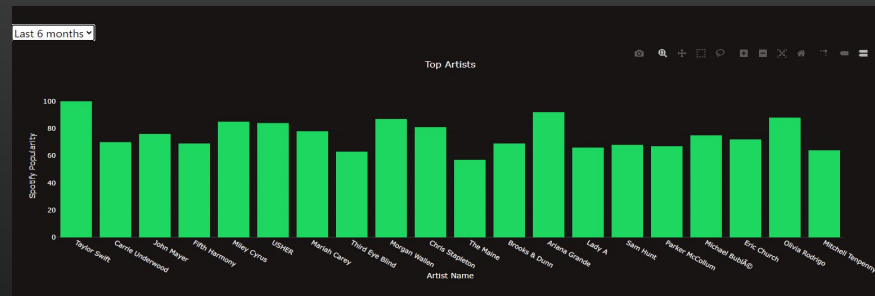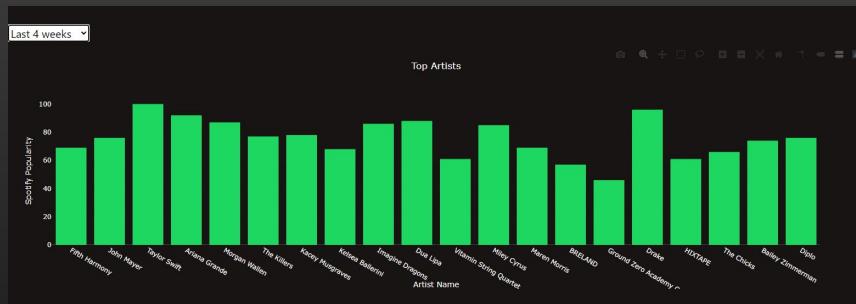https://mbz4b8.github.io/Project3-FINAL/

Artists and songs recently listened to (in last 7 days)

- Track names indicate listener was listening heavily to Ariana Grande's new album "Eternal Sunshine"
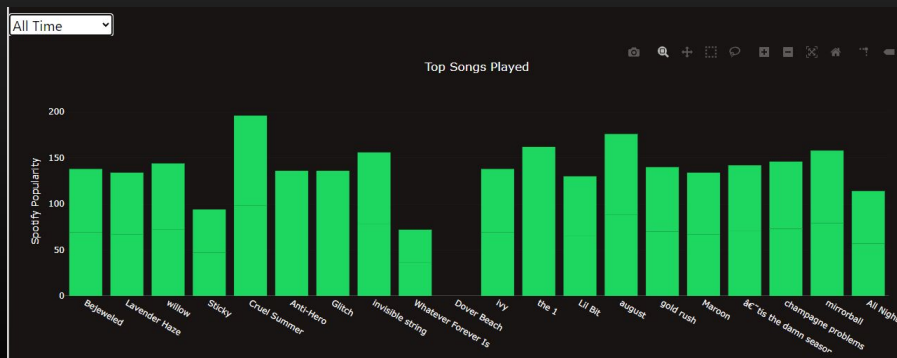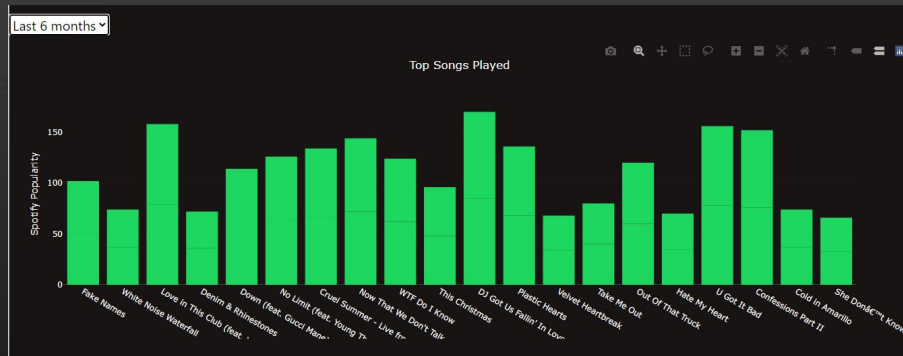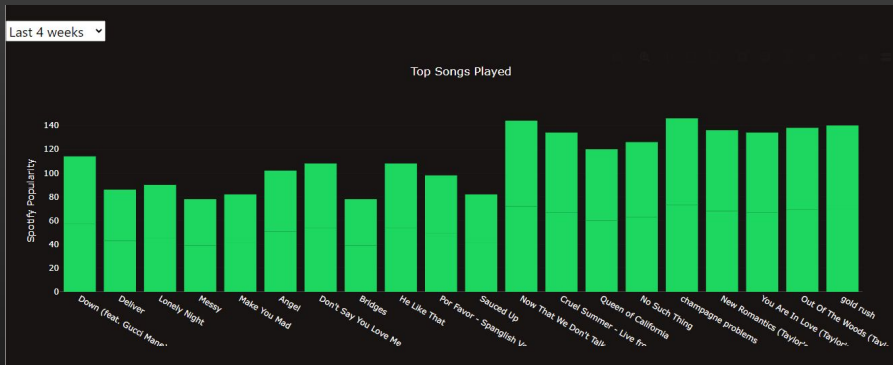
Top Artists

- Taylor Swift remains a Top Artist through all time periods
- Last 6 month data includes "Mariah Carey" as an artist, which likely was due to Christmas music (time period would be Oct to March)
- Artists that have declined in listening over time include "Lady A", "Jason Aldean", and "Florida Georgia Line", as they are not present in the 4 weeks or 6 months charts

Top Songs

- Top Songs change frequently over time, as there are very few repeats between the 4 week and 6 month time views
- Top Songs listening could follow pop culture trends, as Usher songs show up in 6 months chart (which covers the timeframe in which he played the Super Bowl halftime show in January)
- All Time songs include many tracks from Taylor Swift

Recommended artists to listen to (based on current Top Artists) includes new options that would diversify user's listening habits if they are bored with their music habits
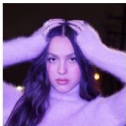
Top Artists Dropdown

Select one of your top artists to see related artists:

Taylor Swift

Selena Gomez	Olivia Rodrigo	Katy Perry	Ariana Grande	Harry Styles
Artist Page	Artist Page	Artist Page	Artist Page	Artist Page

Top Artists Dropdown

Select one of your top artists to see related artists:

Morgan Wallen

Bailey Zimmerman	HARDY	Luke Combs	Jordan Davis	Jon Pardi
Artist Page	Artist Page	Artist Page	Artist Page	Artist Page

Top Artists Dropdown

Select one of your top artists to see related artists:

Kacey Musgraves

Maren Morris	Maggie Rogers	Kelsea Ballerini	Pistol Annies	Cam
Artist Page	Artist Page	Artist Page	Artist Page	Artist Page

Top Artists Dropdown

Select one of your top artists to see related artists:

Sam Hunt

Chase Rice	Old Dominion	Brett Young	Brett Eldredge	Thomas Rhett
Artist Page	Artist Page	Artist Page	Artist Page	Artist Page

Listening Conclusions

- User's song listening is impacted by new Album releases and pop culture events
  - Ex: Ariana Grande's new album release
  - Ex: Usher songs in 6 months list, which coincides with him playing Super Bowl Halftime show
- User's top artists change less frequently than top songs, but does include seasonality influences
  - Ex: Mariah Carey in 6 months chart for Christmas music listening
- Top Artists dropdown chart can be used to diversify current listening habits by providing similar artists to listen to

Q&A