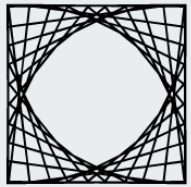


Explorify

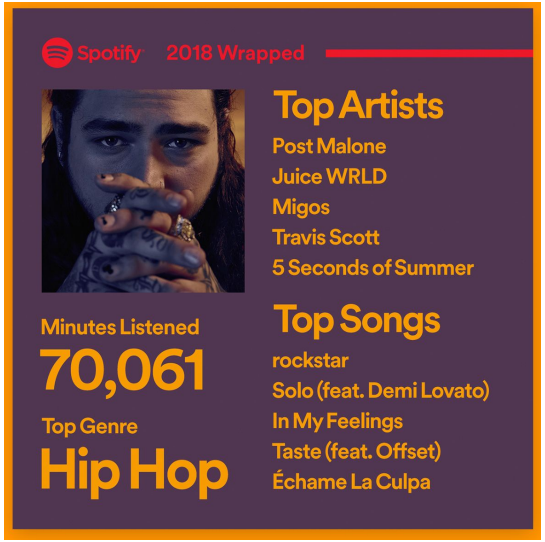
Presented by: Inna Ivanova and Jonatan Engstad
CPSC 547: Information Visualization

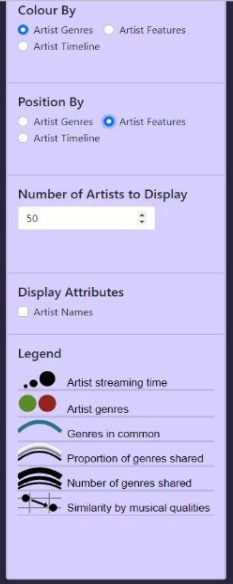
Agenda

1. Motivation
2. Explorify
3. Demo
4. Limitations
5. Q&As

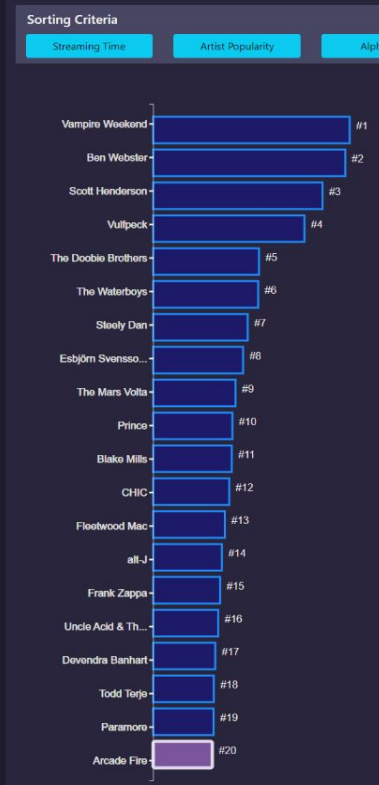
Motivation

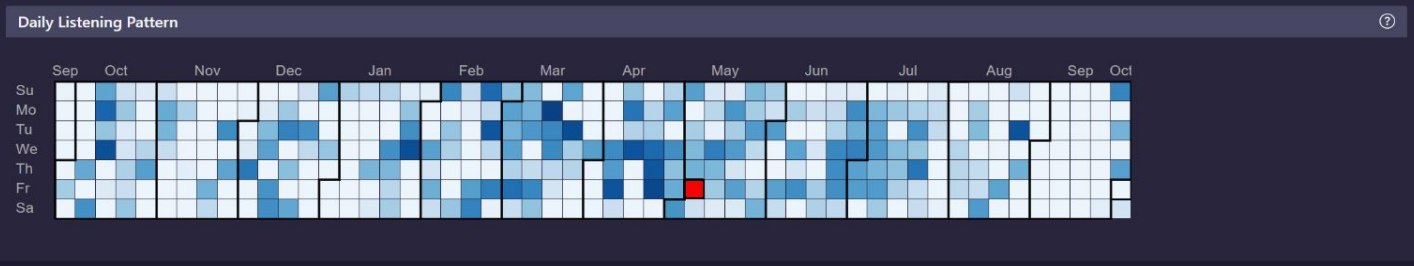
- Spotify Platform
  - The most popular platform for streaming music with millions of users
  - Provides custom visualization for their users data
- Spotify Year Wrapped Report
  - Allows Spotify users to view a compilation of data about their activity on the platform
  - It's only at the end of the year
  - Fairly limited with no interactivity

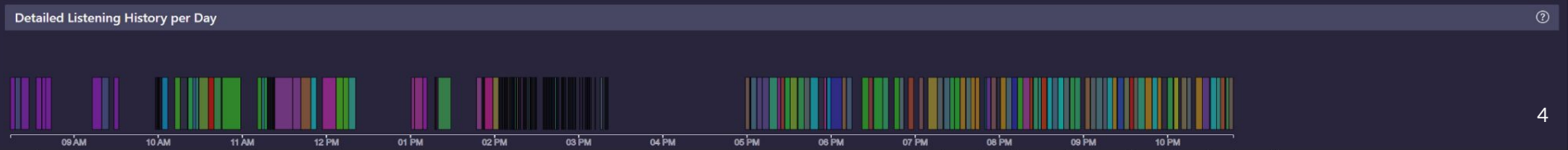




WHAT IS EXPLORIFY?







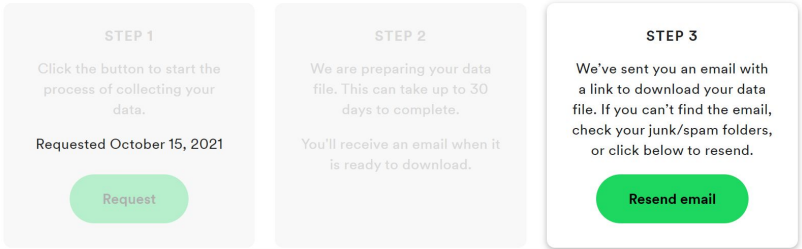
Why is Explorify?

- Allows the user to interact with and explore their personal streaming history
- Using Explorify, the user will:
  - Find interesting patterns and facts
  - Discover trends
  - Trigger memories
- In general: geek out about the data

Building Explorify: Data Collection

Explorify: Data Collection

1. Request data on your Spotify account page. Thanks GDPR!



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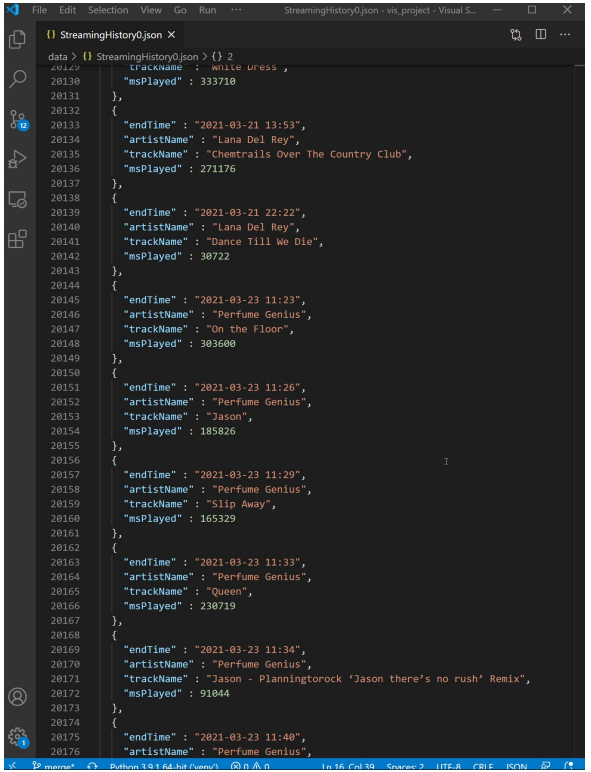

* It is possible to request data for entire account duration, but data is very sparse/fragmented

Explorify: Data Collection

1. Request data on your Spotify account page. Thanks GDPR!
2. Wait
3. Receive 1 year detailed streaming history*
4. Retrieve additional data from the Spotify Web API

Building Explorify: Creating Explorify

Creating Explorify

- The initial idea(s):
  - Streamchart, track clustering, listening pattern analysis, …

4. Data and Task Abstractions

There are a total of 5 tasks we will be visualizing within the Explorify platform: **Artist-Genre Network**, **Track Clustering by Audio Features**, **Artists Stream-graph**, **Top Artist Over Time** and **Daily Listening Pattern**.

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- The initial idea(s)
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- Scrapping the initial ideas
  - Very many ambitious tasks, have to prioritize

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- The initial idea(s)
  - Streamchart, track clustering, listening pattern analysis
- Scrapping the initial ideas
  - Very many ambitious tasks
- The final product takes form
  - Settle on the most promising idea: the artist-genre network.

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  - Iterate

Figure 1. Artist-genre network visualization

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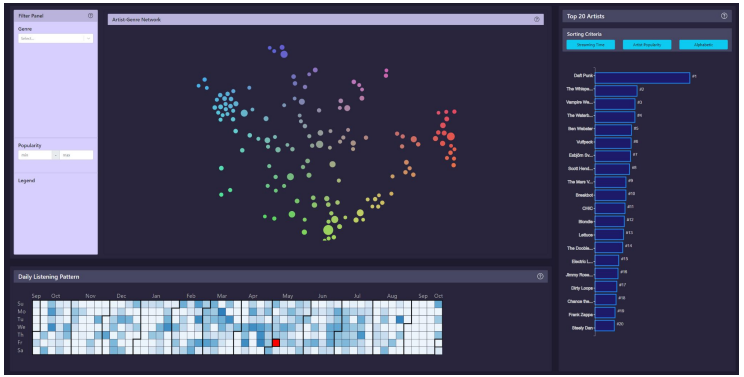

The Process

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  - Streamchart, track clustering, listening pattern analysis
- Scrapping the initial ideas
  - Very many ambitious tasks
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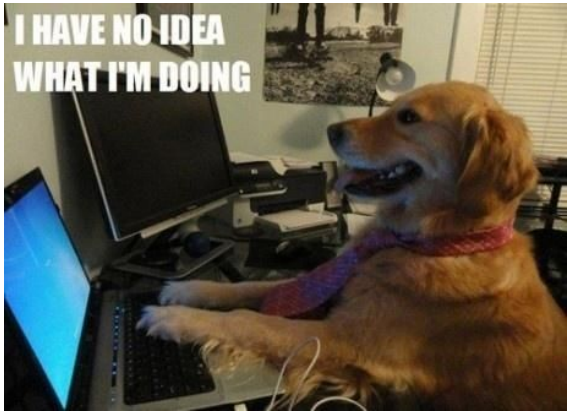
- In parallel: Learn d3, explore and process the data



The Final Product: Explorify

DEMO

Limitations & Future Work

Limitations 1: Simple Technical Limitations

- Transitions could be better
- Code is messy
- Podcasts are not filtered out
- Some tracks have had slight name changes, making it hard to properly identify them
- UI is not responsive, and wastes too much space
- Some bugs present
- Question mark icons do nothing

Limitatons 2: Larger Limitations

- The tool is not very intuitive and the user must do some work before they can see interesting results
- Genres are not displayed very well
    - Possible solution: Multigraph with genres as nodes?

Future Work

- User testing
- Select multiple days in calendar
- Add zooming to timeline chart
- More edgemap options!
  - More edge types: related artists, shared sessions, …
  - More color scales: Artist popularity, …
- Fix the technical issues

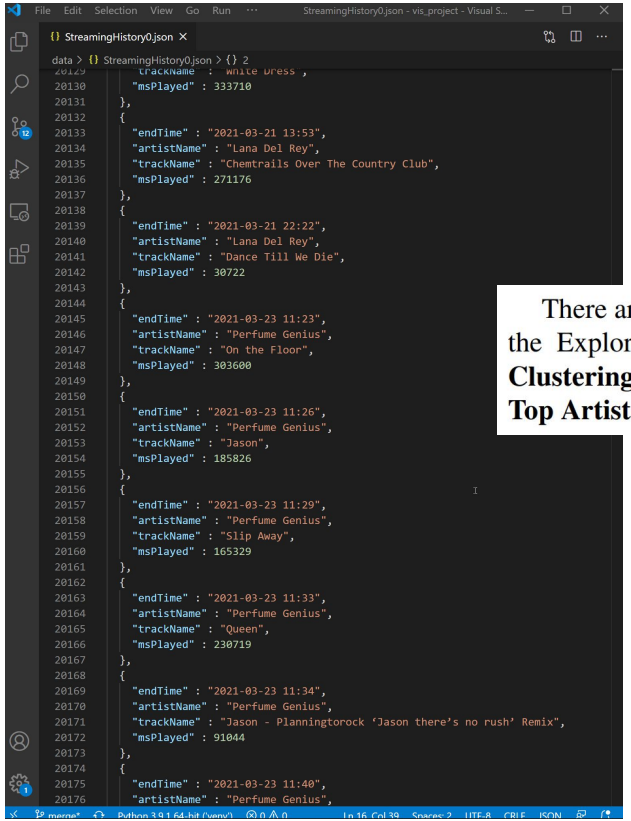
Q
A

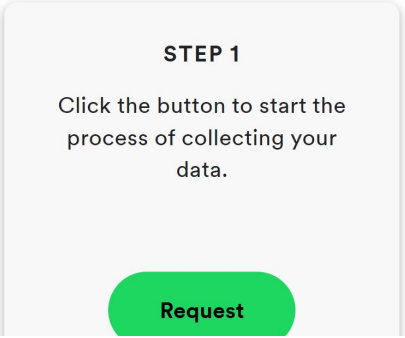
What is Explorify?

- A dashboard visualizing your Spotify streaming history

- Several Interactive and interconnected views
  - Main view: edgemap with artists as nodes
    - With control panel
  - Several supporting views:
    - Calendar heatmap
    - Popularity barchart
    - Timeline Gantt chart

Jonatan's Storage Room





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