



HOME



YOUR TOP SONGS



PLAYLIST

01

Risk

02

Borderline

03

Save Your Tears

04

Bombay Rhapsody



THANKS!



Spotify Streaming Analytics Dashboard

By: Aanvi Goel



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Overview

- **Spotify** is a Swedish audio streaming company that has taken over globally, with 33 million monthly active users, including 188 million paying subscribers, as of June 2022
- Building a **dashboard** to visualize the audio trends on Spotify would help music enthusiasts, audiophiles and music creators gain insights to latest trends in the music industry



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Data Pipeline

Data Ingestion

Spotify Audio
Features dataset
with 1.2M+ song
data.
File format: .csv

Data Storage

Load data into a
MongoDB
collection

Processing

Clean data using
Python and
pandas. Perform
exploratory data
analysis to identify
global streaming
trends

Deployment

Visualize the data
and create a
user-friendly
dashboard to be
hosted on the web
via Streamlit +
StreamlitCloud



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Data Ingestion

- ❖ **Dataset: Spotify 1.2+M Songs** dataset from Kaggle
- ❖ Format : **.csv**
- ❖ 1.2+ M data points for Spotify streamed songs



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```
<class 'pandas.core.frame.DataFrame'>
Int64Index: 1173210 entries, 0 to 1204024
Data columns (total 20 columns):
 #   Column              Non-Null Count  Dtype
---  -
 0   id                  1173210 non-null object
 1   name                1173210 non-null object
 2   album              1173210 non-null object
 3   artists            1173210 non-null object
 4   artist_ids         1173210 non-null object
 5   explicit           1173210 non-null object
 6   danceability        1173210 non-null float64
 7   energy             1173210 non-null float64
 8   key                1173210 non-null int64
 9   loudness           1173210 non-null float64
10   mode               1173210 non-null int64
11   speechiness        1173210 non-null float64
12   acousticness       1173210 non-null float64
13   instrumentalness   1173210 non-null float64
14   liveness           1173210 non-null float64
15   valence            1173210 non-null float64
16   tempo              1173210 non-null float64
17   duration_ms        1173210 non-null int64
18   year               1173210 non-null int64
19   release_date       1173210 non-null object
dtypes: float64(9), int64(4), object(7)
memory usage: 188.0+ MB
```

Data Set



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Data Storage



MongoDb – PyMongo



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Processing

- ❖ **MongoDb - PyMongo** Cleaning EDA performed to create -> **Processed.csv**
- ❖ Pickle used to create lighter Dataframes



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Deployment

❖ **Streamlit Application developed and deployed on
Streamlit Cloud**



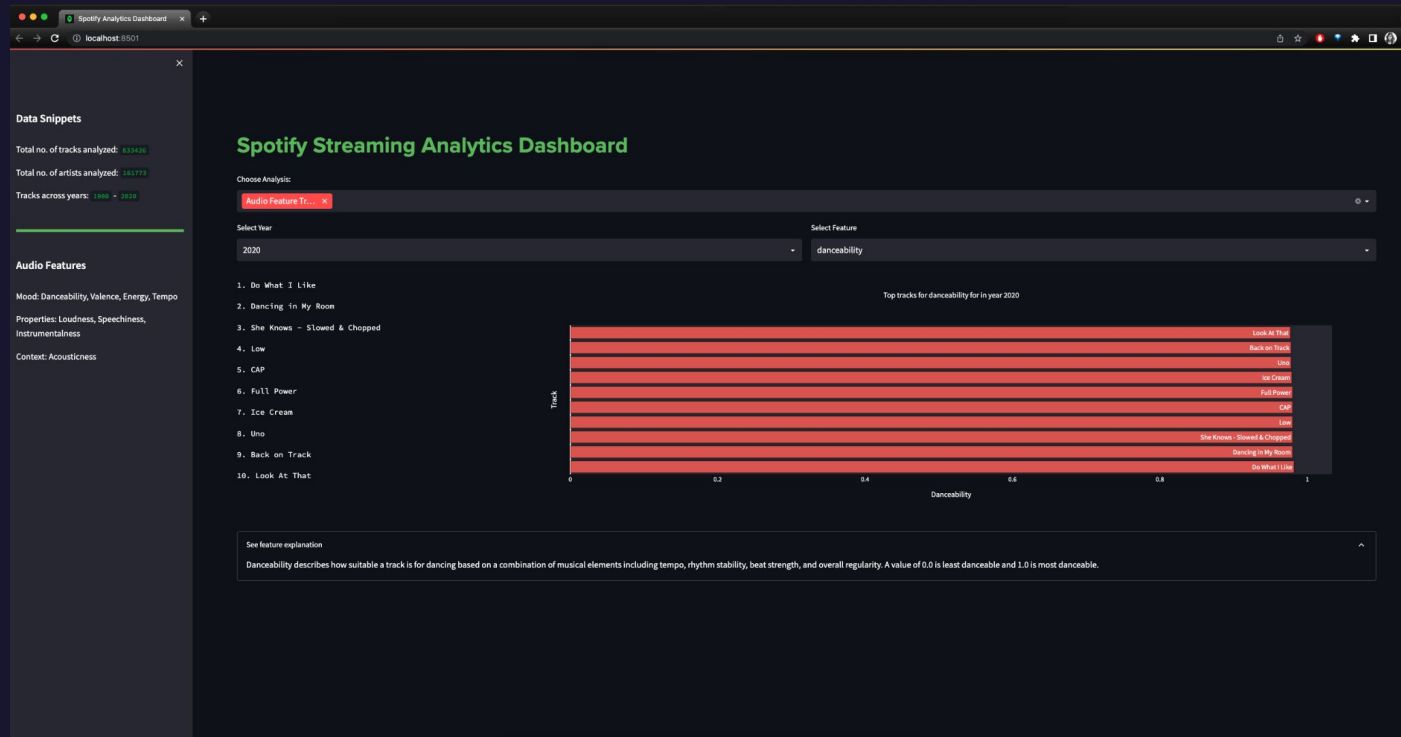
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Streamlit App



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Spotify Streaming Analytics Dashboard

Choose Analysis:

Audio Feature Tr... X

Select Year

2018

Select Feature

loudness

danceability

energy

loudness

speechiness

acousticness

instrumentalness

valence

tempo

1. No Damin' Up the Mighty Mississippi

2. Baseless Recursions

3. Rope in a Yankee

4. Kiss the Dog

5. Raw

6. Landed Me Montana

7. Doubts Are Just Detours

8. Last Words

9. Halleluyah

10. Everything Again

Track



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Future Improvements

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