

Spotify Listening Analysis – Power BI Project

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Introduction

Objective:

The objective of this Power BI project was to design and develop a comprehensive dashboard that visualizes personal Spotify listening habits. The dashboard analyzes music listening trends across albums, artists, and tracks over a span of several years, helping understand behavior patterns and musical preferences.

Tools Used:

- Power BI Desktop
- Spotify Streaming History Dataset (Exported via Spotify data request)

Dataset Overview

The dataset included information on:

- Album plays (by year and time of week)
- Artist plays over time
- Tracks played, including top 5 tracks
- Daily and yearly breakdowns of listening habits
- Device and platform usage (e.g., iOS, Android, Windows)

Dashboard Components

1. Albums Played Over Time

- Total albums played: 292
- Peak year: 2017 with 116 albums
- The dashboard highlights a significant decline in listening activity post-2017, followed by a slight resurgence in recent years.

2. Artists Played Over Time

- Total artists played: 177
- Peak year again was 2017 with 116 artists
- This indicates a strong exploratory behavior during that year.

3. Tracks Played Over Time

- Total tracks played: 581
- Similar peak and trend pattern as albums and artists.
- Notable drop post-2018, possibly indicating a shift in music consumption or platform.

Key Visuals and Analysis

Year-over-Year Comparison (2024 vs Previous Year)

- Albums: 20 (100% increase from previous year)
- Artists: 18 (100% increase from previous year)
- Tracks: 30 (100% increase from previous year)
- This suggests a return to active listening behavior in 2024.

Weekday vs Weekend Listening

- Majority of plays occur on weekdays (approx. 75%)
- Suggests music is a strong companion during workdays.

Top Performers

Top 5 Albums

1. Sgt. Pepper's Lonely Hearts Club Band – 30 plays
2. All Things Must Pass – 27 plays
3. Chaos and the Calm – 19 plays
4. Beatles For Sale, Hozier, With The Beatles – 15 plays each

Top 5 Artists

1. The Beatles – 108 plays
2. Bob Dylan – 34 plays
3. John Mayer – 29 plays
4. George Harrison – 27 plays
5. James Bay – 26 plays

Top 5 Tracks

1. Sgt. Pepper's Lonely Hearts Club Band – 5 plays
2. A Day in the Life – 4 plays
3. Born to Die, From Afar, Incomplete – 3 plays each (tie with several other tracks)

Key Features of the Dashboard

1. Interactivity
 - Filters by platform (Windows, iOS, Android, etc.)
 - Toggle for 'cast to device' and other settings

2. Visual Appeal

- Modern dark theme with vivid green highlights for key metrics

3. Data Clarity

- Intuitive layout with consistent charting style for comparative analysis

4. Performance Trends

- Highlights most active years and comparative insights for resurgence in 2024

5. Comprehensive Overview

- Captures entire music listening behavior in a single-page visual format

Conclusion & Learnings

Conclusion:

The Spotify Listening Dashboard offers deep insights into personal music preferences and trends over the years. It highlights key moments of musical engagement and periods of change, helping reflect on listening patterns and discover influential artists and albums.

Learnings:

- Gained hands-on experience with temporal data visualization in Power BI
- Learned how to represent multiple categorical datasets (albums, artists, tracks) clearly
- Developed skills in designing engaging dashboards tailored for personal analytics

