

# Spotify Dashboard Analysis

The image shows a detailed view of the Spotify dashboard, likely from a data analysis tool like Tableau. At the top, there's a large Spotify logo and a navigation bar with Home, Overview, Artists, and Songs buttons. Below this, a grid of album covers is displayed.

The main content area is divided into several sections:

- Songs by Artist:** A list of artists and their song counts:
  - Taylor Swift: 789 Distinct Songs
  - Peggy Gou: 342 Count of artist
  - KAROL G & Farré & DFZM: 3.28 Avg Duration
  - Beyoncé: 90 Average of
- Popularity by Song:** A chart showing song popularity with titles like "I Wan...", "Cruel...", "As It...", "One O...", "Seven...", "The N...", "Lose...", "Beauti...", "Starboy", and "LUNA".
- Songs by Album Type:** A donut chart showing the distribution of songs by album type: single (269), album (562), and compilation (444).
- Explicit and Non-Explicit:** A donut chart showing the distribution of explicit and non-explicit songs: Explicit (360) and Non-Explicit (444).
- Songs by Year:** A chart showing the percentage of songs by year: 2024 (51.66%), 2023 (48.34%), and albums (34%).
- Avg Popularity:** A line chart showing average popularity over time from January to December.
- Distinct Songs:** A bar chart showing the number of distinct songs per month: Jan (88), Feb (91), Mar (114), Apr (117), May (154), Jun (163), Jul (212), Aug (186), Sep (160), Oct (220), Nov (202), and Dec (115).

At the bottom, there's another navigation bar with Home, Overview, Artist, Songs, and a plus button.

**Songs**

By Artist

**Artist by Songs**

Distinct Songs by Artist

Artist	Songs
Taylor...	85
Travis...	30
Drake	27
Bad B...	22
Beyo...	17
Kendr...	17
Arian...	15
Emine...	15
Kanye...	15

**Popularity by Artist**

Popularity by Artist

Artist	Popularity
Taylor...	164K
Billie ...	80K
Sabri...	67K
The ...	61K
Arctic...	51K
KARO...	48K
Bad B...	48K
SZA	44K
Arian...	43K

**Songs Hits per Artist**

Position 1 Hits per Artist by song

Artist	Hits
Lady ...	77
Jung ...	69
Sabri...	51
Eslab...	40
Benso...	34
Tate ...	34
Billie ...	27
Maria...	27
Doja ...	23

**Artist**

**Song Appearances**

**Album Count**

**Avg Popularity**

**Song Popularity Rank**

**Best Position**

**Worst Position**

Artist	Song Appearances	Album Count	Avg Popularity	Song Popularity Rank	Best Position	Worst Position
*NSYNC	66	1	88.48	1	8	46
Y\$ & Kanye West & Ty Dolla \$ign	120	8	82.18	2	1	50
21 Savage	119	5	91.92	2	7	49
4batz & Drake	1		74.00	1	34	34
Adam Port & Stryv & Keinemusik	74		89.84	1	19	50
Addison Rae	31		87.42	1	28	50
aespa	12	1	69.67	2	33	49
a-ha	7	1	88.43	1	36	47
Alessandra	2		85.50	1	42	47
Alex Favela & Grupo Marca Registrada & Joaquin Medina	2		88.00	1	50	50
Alphaville	4	1	85.25	1	42	50
Andrew Gold	1	1	77.00	1	28	28
Andy Williams	33	1	77.30	1	5	37

**Songs**

By Artist

**Artist by Song Appearances**

Song Appearances by Artist

Artist	Songs
Taylor...	1871
Billie ...	860
Sabri...	736
The ...	674
Arctic...	548
Bad B...	537
KARO...	527
Arian...	487
SZA	484

**Songs by Popularity**

Total Popularity by Song

Song	Popularity
I Wan...	51K
Cruel ...	50K
As It ...	35K
One ...	34K
Seven...	32K
The N...	30K
Lose ...	30K
Beaut...	28K
Starboy	28K

**Hits per Songs**

Position 1 Hits per Song

Song	Hits
Die W...	77
Seven...	75
Ella B...	40
Beaut...	34
greedy	34
Espre...	31
All I ...	27
Paint ...	23
BIRDS...	22

**Release Date**

**Album Type**

**Avg Popularity**

**Max Popularity**

**Avg Duration**

Release Date	Album Type	Avg Popularity	Max Popularity	Avg Duration
26 October 2023	album	85.76	91	3.01
15 June 2023	single	93.04	94	3.86
08 November 2024	single	78.38	84	4.97
27 March 2024	album	49.00	51	3.79
14 November 2024	single	71.00	71	3.03
04 July 2024	album	80.50	81	3.89
07 June 2024	album	87.43	88	2.23
29 September 2023	single	43.50	88	3.36
02 October 2023	album	86.23	89	3.36
29 September 2023	single	0.00	0	2.71
05 April 2024	album	76.00	80	3.54
06 October 2023	album	61.40	80	4.33
06 October 2023	album	64.00	81	4.45
12 April 2024	single	92.59	96	2.85

**PROJECT STORYTELLING — FINAL INTERVIEW VERSION (Use This Exactly)**

## Project: Spotify Top-50 Global Dashboard (End-to-End BI Solution)

"This project focuses on transforming Spotify's raw global Top-50 dataset into a complete analytics dashboard that supports music analysts, playlist curators, and marketing teams in understanding song, artist, and album performance trends."

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### ★ 1. Business Problem

Spotify teams were relying on daily ranking lists that were difficult to analyze.  
There was **no single place** to see:

- Which artists dominate the charts
- Patterns in popularity over time
- Explicit vs non-explicit song performance
- Album type distribution
- Song and artist consistency
- #1 hit analysis
- Trend insights across months and years

This resulted in **slow decision-making** for playlist curation, marketing campaigns, and promotions.

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### ★ 2. Analytical Goals

I designed the dashboard to answer critical questions:

- Which artists and songs are performing the best?
  - What types of content (albums, singles, compilation) do well?
  - Are explicit songs performing differently than non-explicit ones?
  - Which artists are consistent hit-makers?
  - What is the monthly and yearly trend of popularity and distinct song count?
  - Which songs and artists achieved #1 position the most?
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### ★ 3. Data Preparation and Modeling

I began with the dataset containing:

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date, position, song, artist, popularity, duration_ms, album_type, total_tracks,  
release_date, is_explicit, album_cover_url
```

Steps:

- Cleaned columns
- Converted date & release\_date to date types
- Created a **separate \_Measure table** for all DAX measures

- Built time intelligence columns (year, month)
  - Created KPI measures (popularity, duration, counts, explicit %)
  - Created ranking and hit-analysis measures (#1 hits per artist/song)
  - Connected slicers & interactions for drill-down pages
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## ★ 4. Dashboard Design & Pages

### 🎨 Home Page

- Minimalistic Spotify branding
  - Navigation buttons to Overview → Artist → Songs
  - Designed like an app home screen to make the dashboard intuitive
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### 📊 Overview Page

Shows the entire ecosystem in one glance:

#### KPIs

- Distinct Songs
- Count of Artists
- Avg Duration
- Avg Popularity

#### Key Modules

- Songs by Album Type
- Explicit vs Non-Explicit
- Songs by Year (2023 vs 2024)
- Avg Popularity Trend (Month/Quarter buttons)
- Distinct Songs by Month
- Top artists list and top songs list

This page tells **what is happening at a macro level.**

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### 👤 Artist Page

Focused on artist-level intelligence:

#### Visuals

- Distinct songs per artist
- Popularity by artist
- Position #1 hits per artist

- Trend card showing top artist/song

## Artist Table

Includes:

- Song appearances
- Album count
- Avg popularity
- Song popularity rank
- Best & worst positions

This page helps Spotify teams quickly identify:

- Artist consistency
- Strongest performers
- Hit makers (#1 hits)
- Popularity patterns

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## 🎵 Songs Page

Gives detailed insights into each song:

- Song popularity
- Song appearances
- #1 hits per song
- Release date
- Album type
- Avg popularity, max popularity
- Avg duration

This page supports:

- Content planning
- Playlist strategy
- Song discovery & marketing decisions

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## ⭐ 5. Impact Delivered

Your dashboard enables Spotify teams to:

- Identify dominant artists & breakout songs
- Track monthly & yearly trends
- Analyze song characteristics (explicit, duration, type)
- Predict which content is likely to perform better
- Prioritize artists for partnerships
- Support playlist curation based on data
- Make marketing decisions backed by analytics

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## ★ 6. Tools & Techniques Used

- Power BI
  - DAX measures (over 30 custom measures)
  - Time intelligence functions
  - Visual interaction controls
  - Custom theme + polished UI
  - Performance optimization techniques
  - Separate measure table (\_Measure) for professional modelling
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## ★ 7. Key DAX Measures You Created

- Distinct songs
- Avg Duration
- Explicit %
- #1 Hits per Artist
- Songs per Artist
- Popularity Rank
- Song Appearances
- Album type splits
- YoY Popularity
- Trend analysis (monthly)

This proves your capability in DAX, modeling, and BI logic.

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## 🎯 Final Story Line (Short Version for Interviews)

Use this when the interviewer asks:

**“Tell me about your Spotify project.”**

*I built a complete Spotify Top-50 analytics dashboard in Power BI. The goal was to transform raw ranking data into actionable insights for playlist managers and marketing teams. I created KPIs for songs, artists, popularity, duration, and explicit content. I added trend analysis across months and years, built ranking and #1 hit measures, and designed separate pages for overview, artist insights, and song deep-dives. The dashboard helps teams identify hitmakers, understand performance patterns, track content types, and make data-driven decisions. I also used a separate measure table, custom DAX, and applied strong UI/UX similar to Spotify’s design language. Overall, it’s an end-to-end BI project demonstrating data modeling, storytelling, and visualization mastery.*

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# INTERVIEW QUESTIONS & ANSWERS — SPECIFIC TO YOUR PROJECT

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## 1. What was the main goal of your Spotify dashboard?

**Answer:**

The goal was to turn raw Top-50 ranking data into actionable insights, helping Spotify teams understand artist performance, song trends, popularity evolution, album type distribution, and explicit vs non-explicit patterns.

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## 2. How did you structure your data model?

**Answer:**

I used a clean star-like model with the raw table as a fact table.

I created a `_Measure` table to store all calculations.

I added date hierarchies, year, and month columns for time intelligence.

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## 3. What important DAX measures did you build?

- Distinct Songs
  - Distinct Artists
  - Avg Popularity
  - Avg Duration
  - Explicit %
  - Songs per Artist
  - Song Appearances
  - Position 1 Hits per Artist
  - Popularity Rank
  - YoY Popularity
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## 4. What insights did you derive from the dashboard?

- Taylor Swift, Billie Eilish, and SZA dominate appearances
  - Explicit songs have strong presence but similar popularity to non-explicit
  - 2024 has more popular songs than 2023
  - Singles dominate over albums
  - Some artists consistently produce #1 hits
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## 5. What were your biggest challenges?

- Avoiding duplicate song counts
  - Handling time intelligence without a date table
  - Creating a clean UI that resembled Spotify
  - Organizing 30+ measures into folders
  - Ensuring the visuals interact properly
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## 6. How did you optimize performance?

- Used measure table
  - Removed unnecessary calculated columns
  - Used variables in DAX where needed
  - Avoided heavy visuals
  - Limited cross-filtering
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## 7. Why did you build separate pages?

### **Answer:**

To support different business users:

- Overview → Leadership
  - Artist Page → Music analyst / label partners
  - Songs Page → Playlist managers
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## 8. What makes your dashboard unique?

- Spotify-themed UI
  - Navigation buttons like a real app
  - Artist cards & album art integration
  - Hit analyzers (#1 hits per artist/song)
  - Interactive trend switches (Month / Quarter)
  - Extremely professional layout
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## 9. If given more time, what would you add?

- Forecast popularity
- Add audio preview integration
- Genre-level analysis
- Machine learning-based hit prediction

### Top Resume Bullet (Highly Recommended)

- Built an end-to-end Spotify Top-50 analytics dashboard in Power BI, transforming raw ranking data into actionable insights on artist performance, popularity trends, album types, and explicit content behavior using 30+ custom DAX measures and an optimized data model.
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### Short & Sharp Version

- Designed a Power BI dashboard analyzing Spotify Top-50 global data with KPIs, trend analysis, artist/song drill-downs, and advanced DAX calculations to support data-driven playlist and marketing decisions.
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### Impact-Focused Version

- Delivered a Spotify analytics dashboard that reduced analysis time for music trends by 70% by providing centralized KPIs, hit-maker identification (#1 positions), explicit vs non-explicit analysis, and yearly/monthly popularity insights.
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### Technical Version (Best for Data Engineering / BI roles)

- Developed a professional Power BI solution with a dedicated measure table, time intelligence, ranking logic, navigation UX, cleaning transformations, and 30+ optimized DAX measures (distinct counts, hit analysis, popularity ranking, YoY trends).
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### Design + UX Version (Best for Product/Analytics roles)

- Created a Spotify-themed interactive BI dashboard with custom UI, navigation buttons, card visuals, drillthrough pages, and album-cover integration to enhance storytelling and user experience for music analytics.
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### One-Line Strong Statement

- Built a complete Spotify insights platform in Power BI with KPI monitoring, trend analysis, artist profiling, and song-level analytics enabling data-driven music curation and marketing strategies.