** SPOTIFY ANALYSIS**

**OVERVIEW:**  
This project analyzes user engagement and listening trends within the digital music landscape using a comprehensive dataset from Spotify. By examining Albums Data, Artists Data, and Tracks Played Data, this analysis aims to deliver crucial insights into user consumption patterns and how interaction with specific music content evolves over time. These findings are vital for both streaming platforms and users seeking to understand the dynamics of today's digital music era.

**ALBUMS:**

* **Total Albums Played Over Time** – Track how album listening trends change over months and years.
* **Number of Albums Listened by Year** – Identify annual listening habits and volume (Find the Min and Max Albums in the view).
* **Albums Played on Weekday & Weekend –** Identify the Pattern of music listening on weekdays and weekends.  
  **Top 5 Albums** – Identify the most played albums based on listening frequency.
* **Latest Year vs Previous Year Analysis** – Compare album consumption between the latest and previous years, including:

1. YoY (Year-over-Year) Growth Analysis
2. LY (Latest Year) vs PY (Previous Year) Trends

**ARTISTS:**

* **Total Artists Played Over Time** – Track how artist listening trends evolve across months and years.
* **Number of Artists Listened by Year** – Identify annual listening habits and artist diversity. (Find the Min and Max Artists in the view).
* **Artists Played on Weekday & Weekend –** Identify the Pattern of music listening on weekdays and weekends.
* **Top 5 Artists** – Identify the most played artists based on listening frequency.
* **Latest Year vs Previous Year Analysis** – Compare artist engagement between the latest and previous years, including:

1. LY (Latest Year) vs PY (Previous Year) Trends
2. YoY (Year-over-Year) Growth Analysis

**TRACKS:**

* **Total Tracks Played Over Time** – Monitor how track listening trends change across months and years
* **Number of Tracks Listened by Year** – Identify annual listening habits and track diversity. (Find the Min and Max Tracks in the view).
* **Tracks Played on Weekday & Weekend –** Identify the Pattern of music listening on weekdays and weekends.

**Top 5 Tracks** – Identify the most played tracks based on listening frequency.

* **Latest Year vs Previous Year Analysis** – Compare track engagement between the latest and previous years, including:

1. LY (Latest Year) vs PY (Previous Year) Trend
2. YoY (Year-over-Year) Growth analysis

**LISTENING PATTERNS:**

* **Listening Hours Analysis** – Identify peak listening times using a Heat Map that visualizes patterns across hours and days with color intensity.
* **Average Listening Time (min) vs Track Frequency** – Use a Scatter Plot with Quadrant Analysis to categorize tracks based on:

1. **High Frequency & High Listening Time** – Most engaging tracks
2. **Low Frequency & High Listening Time** – Niche but impactful tracks
3. **High Frequency & Low Listening Time** – Short & frequently played tracks
4. **Low Frequency & Low Listening Time** – Less popular tracks

**DETAILS GRID:**

In this report, we aim to analyze Spotify data by creating an interactive and dynamic Grid View. The Grid will display key details such as Album Name, Artist Name, Track Name, and other relevant attributes.

**Key Requirements:**

* **Grid View with Essential Fields:**
  1. The Grid should present critical data points for an intuitive and structured view.
* **2. Drill Through Functionality:**
  1. Users should be able to drill through from the main reports to explore underlying data for detailed insights.
  2. The drilled-through data should be exportable to a CSV file based on user requirements.
* **3. Drill Down, Drill Up, and Hierarchy:**
  1. The Grid should support hierarchical navigation, allowing users to drill down and up for in-depth data exploration.