Spotify Music Listening Analysis Report

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1. Executive Summary

This report analyzes user engagement with albums, artists, and tracks on Spotify. The analysis is based on historical trends, weekday vs. weekend listening behavior, and top-performing music elements. The insights will help Spotify understand listening habits and optimize user experience.

2. Key Findings & Insights

A. Albums Analysis

- **Total Albums Played:** 7,905 albums played over time.
- **Listening Trend:** The peak occurred in 2021 with 2,668 albums played, followed by a slight decline in recent years.
- **Weekday vs. Weekend Listening:** 63.08% of albums were played on weekends, indicating higher user engagement during weekends.
- **Year-over-Year (YoY) Trend:** The latest year shows 1,824 albums played, a **21.82% decrease** from the previous year.
- **Top 5 Albums Played:**
    - *The Beatles* - 2,063 plays
    - *Past Masters* - 1,672 plays
    - *Abbey Road* - 1,429 plays
    - *The Wall* - 1,241 plays
    - *Revolver* - 1,038 plays

Recommendations

- Introduce weekend-based promotions or personalized recommendations.
- Investigate reasons for the decline in album plays in recent years.

B. Artists Analysis

- **Total Artists Played:** 4,112 artists played over time.
- **Listening Trend:** The peak occurred in 2021 with 1,578 unique artists played.
- **Weekday vs. Weekend Listening:** 63.15% of artists were played on weekends, similar to album engagement trends.
- **Year-over-Year (YoY) Trend:** The latest year saw 1,071 artists played, a **26.39% decline** from the previous year.
- **Top 5 Artists Played:**
    - *The Beatles* - 1,621 plays
    - *The Killers* - 987 plays
    - *John Mayer* - 814 plays
    - *Bob Dylan* - 713 plays
    - *Paul McCartney* - 654 plays

Recommendations

- Introduce more artist-specific engagement strategies, such as personalized playlists.
- Understand declining artist engagement—potential reasons could be a shift in user preferences.

C. Tracks Analysis

- **Total Tracks Played:** 13,665 tracks played over time.
- **Listening Trend:** The peak occurred in 2021, with 5,106 tracks played.
- **Weekday vs. Weekend Listening:** 64.26% of tracks were played on weekends, reinforcing the trend that users engage more with music during weekends.
- **Year-over-Year (YoY) Trend:** The latest year recorded 3,568 tracks played, an **11.49% decline** from the previous year.
- **Top 5 Tracks Played:**
    - *Ode to the Mets* - 207 plays
    - *In the Blood* - 186 plays
    - *Dying Breed* - 166 plays
    - *19 Days* - 144 plays
    - *Concerning H.* - 138 plays

Recommendations

- Create weekend-special playlists to boost engagement.
- Conduct surveys to understand changing music preferences.

3. Conclusion & Next Steps

- The analysis shows a downward trend in album, artist, and track plays in recent years.
- Users engage more on weekends, making it essential to introduce tailored content for weekends.
- The Beatles dominate listening trends, suggesting strong classic music engagement.
- Future analysis should focus on:
    - Understanding user preferences via surveys.
    - Implementing AI-driven personalized recommendations.
    - Exploring promotional strategies to increase engagement.

Dashboard_2

1. Listening Hours Analysis (Heatmap)

- The heatmap on the left side of the dashboard visualizes listening activity across different hours and days.
- **Peak Listening Hours:**
    - The highest listening activity appears to be during **late-night hours (23:00 - 01:00)**.
    - Early morning hours (06:00 - 09:00) have relatively low listening activity.
- **Peak Listening Days:**
    - Tuesday seems to have a higher concentration of listening activity compared to other days.

2. Average Listening Time (min) vs. Track Frequency (Scatter Plot)

- The scatter plot helps categorize tracks into four quadrants based on **track frequency** and **average listening time**.
    - **High Frequency & High Listening Time:**
        - These are the most engaging tracks.
        - They appear as dense clusters towards the left-middle of the scatter plot.
    - **Low Frequency & High Listening Time:**
        - Niche but impactful tracks.
        - Few scattered points in the right side of the plot.
    - **High Frequency & Low Listening Time:**
        - These tracks are short and frequently played.
        - Most data points cluster in the lower left section.
    - **Low Frequency & Low Listening Time:**
        - Less popular tracks.
        - Spread sparsely across the lower right section.

Key Business Takeaways

1. **Prime Listening Hours:** Late-night hours are the most active, indicating users prefer music during leisure or relaxation time.
2. **User Engagement:** The presence of high-frequency & high-listening-time tracks suggests certain tracks are highly engaging.
3. **Niche Tracks:** Some tracks have high listening time but low frequency, indicating dedicated listeners for those specific tracks.
4. **Track Optimization:** Spotify can use this data to curate playlists by promoting highly engaging songs and introducing niche tracks to relevant audiences.