Spotify Charts Analysis Report

1. Dataset Description

The Spotify Charts dataset contains daily ranking information of songs on Spotify across various regions. It includes data like song title, artist, daily rank, stream count, region, chart type (top 200 or viral 50), date, and URL. The dataset spans a large number of rows representing song performance metrics across time and geography.

Each row in the dataset corresponds to a song's chart performance on a given day and region. This allows for detailed analysis of trends over time, regional differences in listening habits, and performance comparison between artists.

2. Key Findings

- The song with the highest total streams across all days and regions is consistently a global hit.
- Rank is strongly negatively correlated with streams: songs with lower rank (i.e., rank 1) tend to have higher streams.
- 'Top 200' charts have significantly higher stream counts compared to 'Viral 50'.
- Artists like Ed Sheeran, Drake, and The Weeknd appear frequently in top streamed lists.
- Certain songs show regional popularity spikes, indicating localized viral trends.

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3. Insights from Visualizations

- A histogram of stream counts shows a highly right-skewed distribution, indicating a few songs dominate the streams.

- Box plots reveal wide variation in streams within chart types, with outliers indicating viral hits. The 'Top 200' chart has a higher median stream count compared to 'Viral 50', but also contains more variability.

- Scatter plots confirm that higher ranked songs (closer to 1) tend to have more streams. There is a visible inverse relationship, showing that rank is a good predictor of popularity.

- Heatmaps show strong correlation between rank and streams, validating ranking as a proxy for popularity. Minimal correlation is observed between other numeric fields.

- Line plots of top songs show rise and fall patterns over time, reflecting changing listener trends and seasonality in music consumption.