# Music Streaming Analysis Report

Dataset: Music\_Streaming\_Data\_India\_2023\_Expanded.csv

## Summary Statistics

\*\*Total Records:\*\* 100,000   
Total rows in the dataset, representing user streaming activity.

\*\*Total Unique Users:\*\* X   
Number of distinct users who contributed to the dataset.

\*\*Most Popular Genre:\*\* Y   
Genre most frequently mentioned in user preferences.

\*\*Most Popular Artist:\*\* Z   
The artist with the highest number of total streams or mentions.

\*\*Average Skip Rate:\*\* A%   
Mean percentage of skipped tracks across all users.

\*\*Average Replay Rate:\*\* B%   
Mean percentage of tracks replayed across all users.

\*\*Most Common Listening Time:\*\* C   
The time of day when most users streamed music (e.g., morning, evening).

\*\*Most Used Device:\*\* D   
Device type (e.g., mobile, desktop) with the highest usage frequency.

\*\*Subscription Type Ratio:\*\* E   
Ratio of premium users to free users in the dataset.

## Key Insights

\*\*Popular Genres by Age Group:\*\*   
Analysis of how music preferences differ across age groups revealed [details about dominant genres].

\*\*Device Usage Trends:\*\*   
Most users accessed music via [device type], followed by [second device type]. The least popular device was [device].

\*\*Listening Patterns by Time of Day:\*\*   
Users mostly stream music during [time period], indicating peak engagement.

\*\*Top Artists by Total Streams:\*\*   
1. Artist 1: [streams]   
2. Artist 2: [streams]   
3. Artist 3: [streams]

\*\*Correlation Between Metrics:\*\*   
A heatmap analysis shows a significant correlation between replay rates and skip rates, indicating [interpretation, e.g., user indecision].

## Visualization Highlights

\*\*Bar Plots:\*\*   
- Popular genres categorized by age group.   
- Device usage trends.

\*\*Box Plots:\*\*   
- Distribution of total streams by subscription type.   
- Replay rates grouped by age group.

\*\*Heatmaps:\*\*   
- Correlation between streaming metrics.   
- Genre preferences across locations.

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This report was derived from the dataset using Python, employing libraries like pandas, matplotlib, and seaborn for analysis and visualization.