

DATA ANALYTICS AND REPORTING

**SPOTIFY TRENDS 2023 ANALYSIS USING
PANDAS & MATPLOTLIB**

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CONTENT

- USING PANDAS:
 - Data Cleaning
 - Summary of the Dataset
- USING MATPLOTLIB:
 - Data Visualization
 - Customizing Plots
 - Statistical Summary of Spotify Data
 - Checking Null Values and Removing Duplicates

USING PANDAS - DATA CLEANING

- Imported Spotify 2023 dataset into Python using Pandas.
- Cleaned missing and duplicate values.
- Standardized column names for better readability.
- Converted date formats and normalized popularity scores.

USING MATPLOTLIB - DATA VISUALIZATION

- Created bar, line, and scatter plots to visualize top artists, tracks, and genres.
- Analyzed trends in streaming frequency and user engagement.
- Used Seaborn for correlation heatmaps and advanced visuals.

STATISTICAL SUMMARY

- Mean, median, and mode analysis of track popularity.
- Genre-based average streams and duration analysis.
- Identified top 10 most streamed artists and songs of 2023.

GROUPING AND AGGREGATION

- Grouped data by ‘Artist’, ‘Genre’, and ‘Country’ to identify key trends.
- Aggregated total streams, listener count, and revenue estimates.
- Visualized grouped data using Seaborn and Matplotlib.

SUBGROUPING AND INSIGHTS

- Created subgroups by month and genre to study temporal trends.
- Observed peak months for streaming activity.
- Found that pop and hip-hop dominated global charts in 2023.

CONCLUSION

- Through detailed analysis using Pandas, Matplotlib, and Seaborn, we successfully cleaned, organized, and visualized Spotify's 2023 data. The insights revealed major trends in music consumption, popular genres, and top-performing artists. Data analytics provided valuable insights into listener preferences, helping understand how data can drive strategic decisions in the music industry.

THANK YOU

- Spotify Trends 2023 Analysis Project
- By: Anurag Dubey & Aditya Singh Rawat