

Final Project: How Does Musical Key Vary Across Genres?

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Notebook 3: Final Product

In this notebook, we present the final product: an infographic exploring how musical keys vary across genres.

Final Product - How Does Musical Key Differ by Genre?

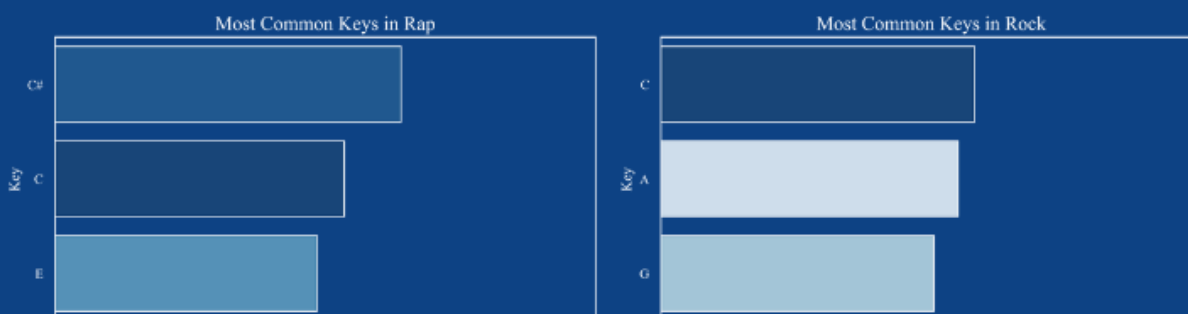
How Does Musical Key Differ by Genre?

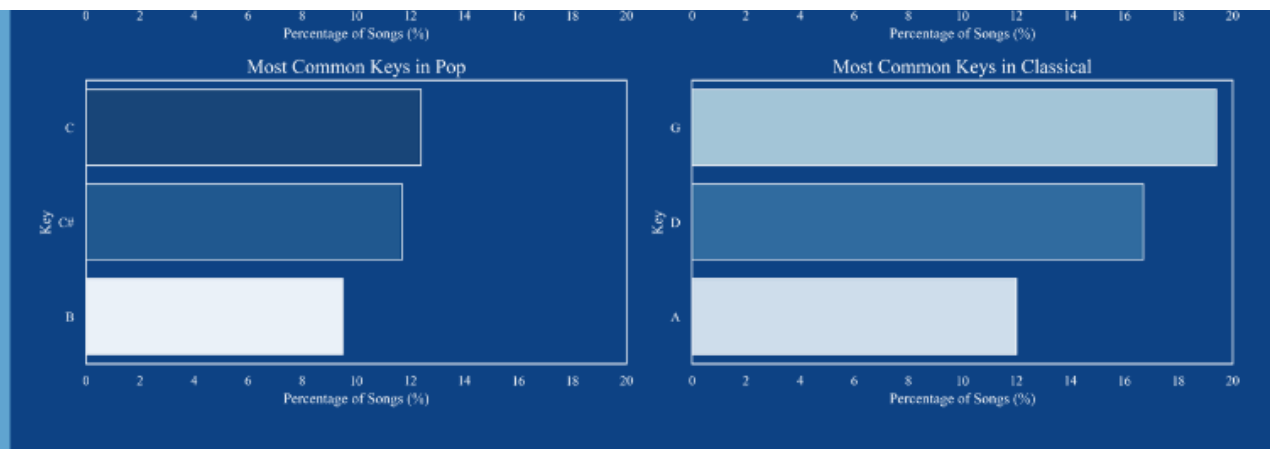
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Music genres are shaped by their sound, so how does one of the most influential aspects of a song's feel change across style?

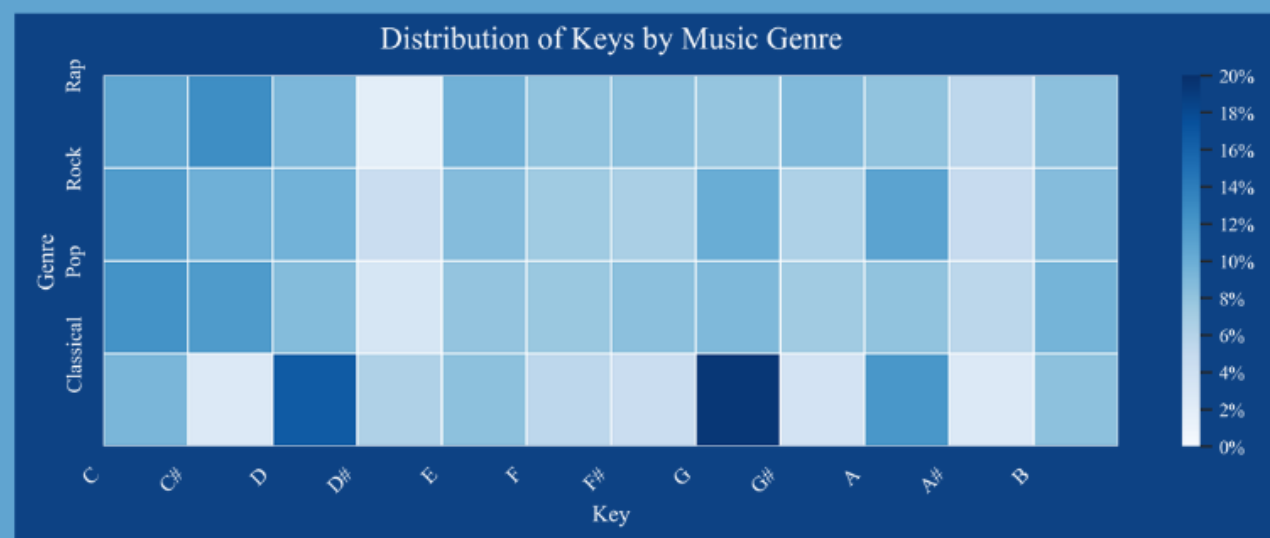
A musical key is the central note and scale a song is built around, establishing its tonal anchor and shaping its overall mood and melodic character. Different keys can evoke distinct emotional qualities, from bright and open to dark and tense, making key choice an important creative decision in the production process

Most Common Keys by Music Genre





Rap, Rock, and Pop all share C as one of their top 2 keys, and Classical and Rock both have A in their top 3



Pop, Rock, and Rap, follow similar patterns across keys, while Classical breaks the mold with a unique tonal profile

Modern genres such as rap, rock, and pop exhibit highly similar key distributions, mostly concentrated around C and C#. This overlap indicates trends in compositional conventions across these styles, suggesting that the foundational structure of modern music transitions seamlessly from genre to genre. Additionally, the widespread use of digital audio workstations, which frequently default to C as the standard production key, may further reinforce this trend. In contrast, classical music presents a different tonal profile, with a key distribution largely dominated by G and D. This divergence is likely driven by instrumental considerations, as these keys align with the

highest concentration of open strings on most orchestral string instruments, making string-heavy symphonies easier to execute.

Source: <https://www.kaggle.com/datasets/byomokeshsenapati/spotify-song-attributes>

Description

This infographic explores the variation of musical keys across different music genres, and the potential reasons for the distributions found. In conducting this analysis, I aimed to uncover patterns and trends in key usage across various genres, searching for trends in how musical keys contribute to the overall feel and style of music. The infographic presents a series of visualizations that highlight the most common keys used in each genre, as well potential explanations for the trends observed. The data used in this project is a kaggle data set containing the author's listening history from 2022. It consists of just over 10,000 unique tracks and 22 features.

Manifest

Name	Description	Link
Github Repository	Main project repo containing code, notebooks, assets, and final deliverables.	GitHub Repo
Dataset	Source data used for analysis/visualizations (Spotify_Song_Attributes.csv).	Dataset
Notebook 1	Notebook for initial data loading and slight cleaning.	Notebook 1
Notebook 2	Notebook for in depth cleaning and data exploration/ visualization.	Notebook 2
Notebook 3	Notebook for presenting final product.	Notebook 3
Original Code	Original python file.	Original Code
Infographic (PNG)	Final composed infographic export (PNG).	Infographic
Infographic (SVG)	Final composed infographic export (SVG).	Infographic
Visualization 1	2x2 bar chart grid of top 3 keys per genre.	Visualization 1
Visualization 2	Heatmap of key distribution (%) by genre.	Visualization 2

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requirements.txt Python dependencies needed to run the project.

[requirement](#)
[s.txt](#)
