

Music Data Visualization Report

Descriptive Statistics (Popularity):

count: 5000.0
mean: 50.6354
std: 28.988924408947593
min: 0.0
25%: 26.0
50%: 51.0
75%: 76.0
max: 100.0

Inferential Analysis (T-Test: pop vs. rock):

Genre A: pop, Average Popularity: None

Genre B: rock, Average Popularity: None

T-statistic: None

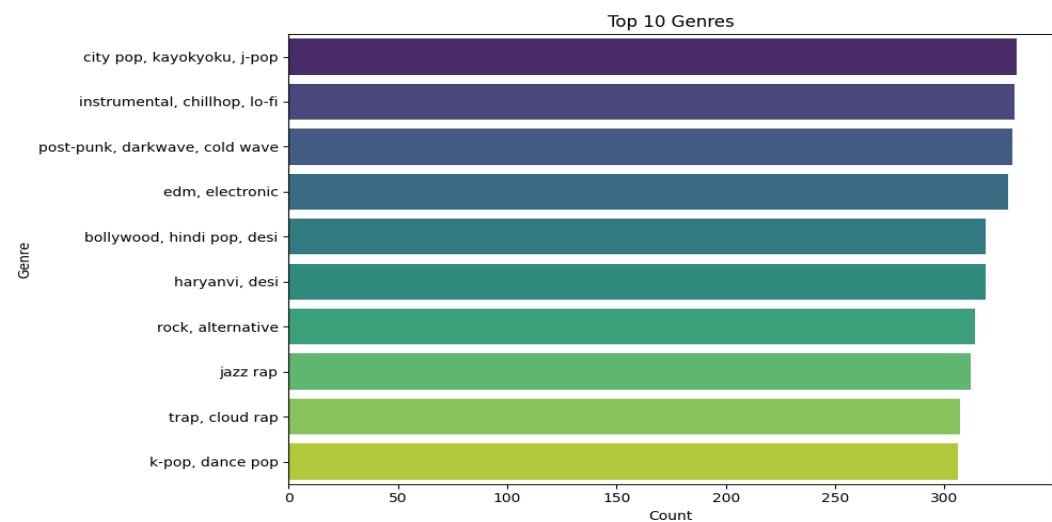
P-value: None

Analysis Methods Used:

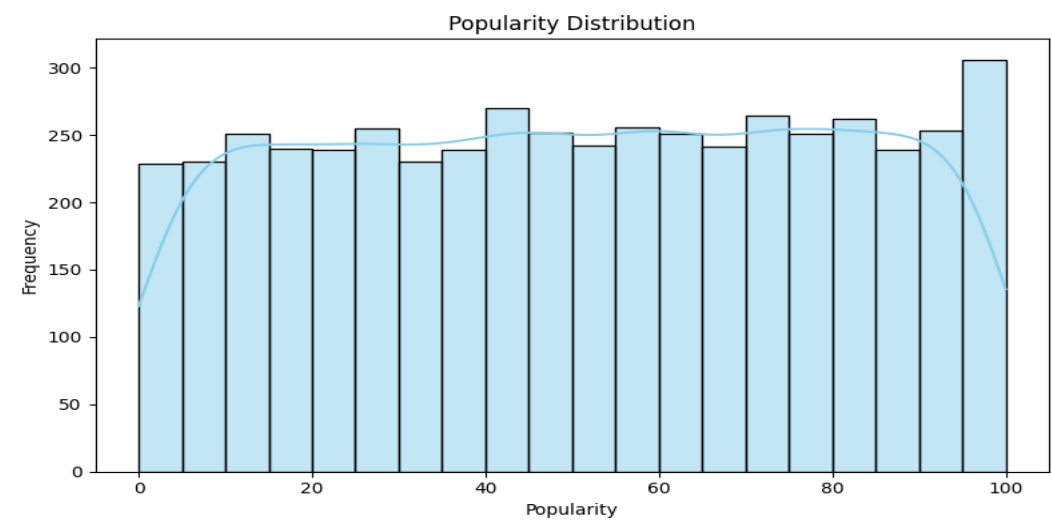
- Descriptive Statistics: Summary measures (mean, median, std, etc.) for song popularity.
- Inferential Statistics: A t-test was performed to compare average popularity between pop and rock genres.
- Machine Learning: K-Means clustering was applied on a feature set extracted from the dataset (in our case, we focused on genres and popularity as proxy features) to group songs into clusters.
- Visualization: Various plots (bar plots, histograms, boxplots) were generated to provide insight into genre distribution, popularity distribution, and artist frequency.

Visualizations

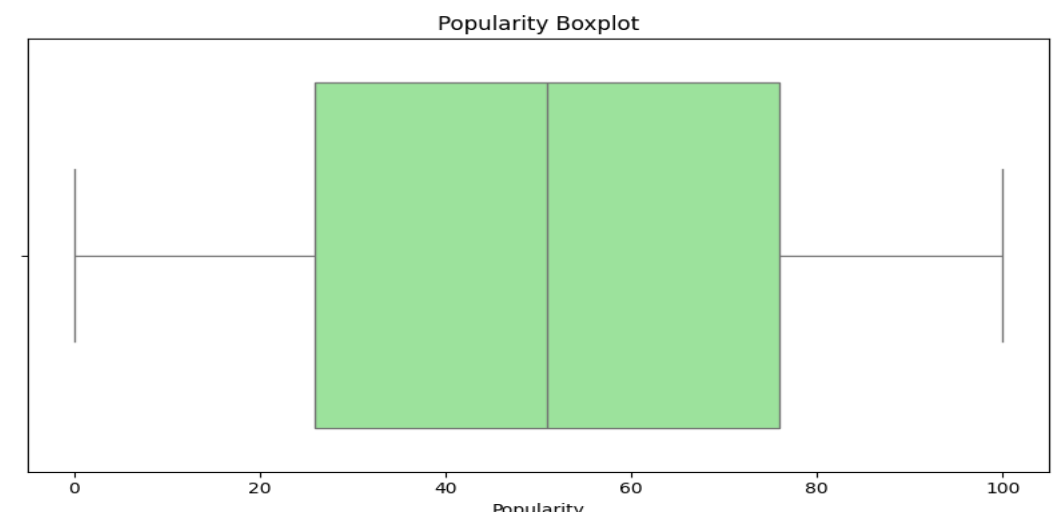
Genre Distribution



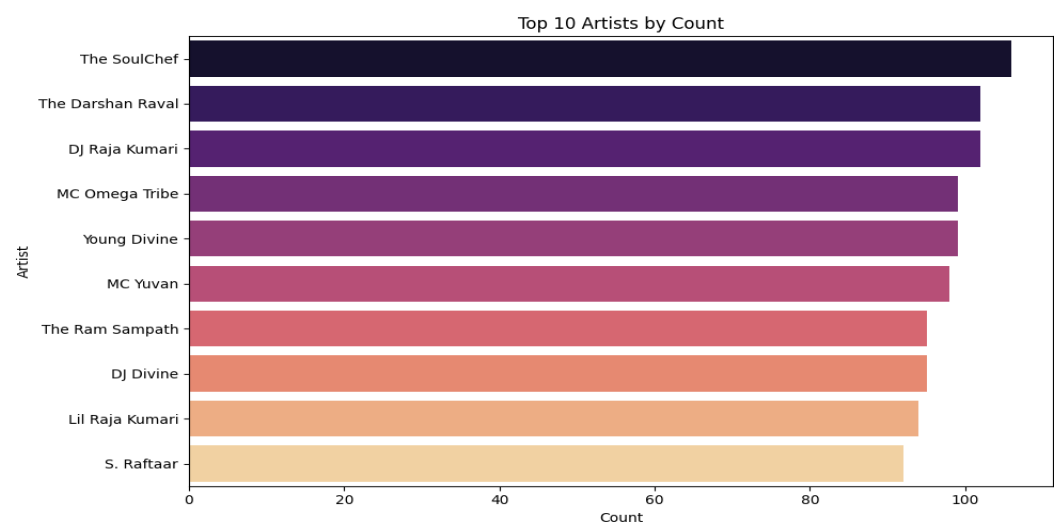
Popularity Histogram



Popularity Boxplot



Top Artists



Avg Popularity By Genre

