SPOTIFY

Question:

What variables play a role in the popularity of a top track in Spotify?

Database + Workflow

The database was collected by college students from Spotify's API in which they calculate with weight the popularity of the songs from 2017 to 2020 with important variables measured
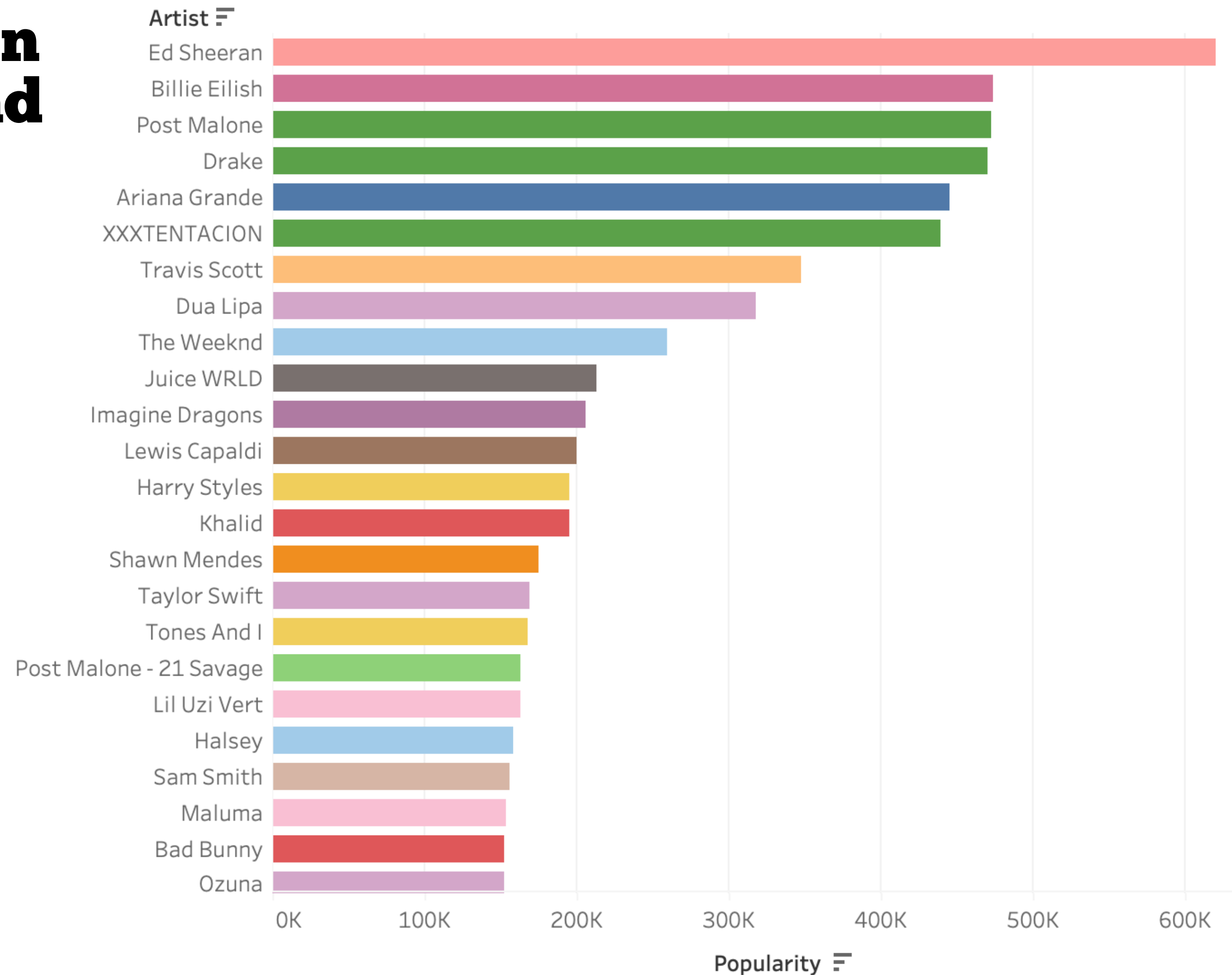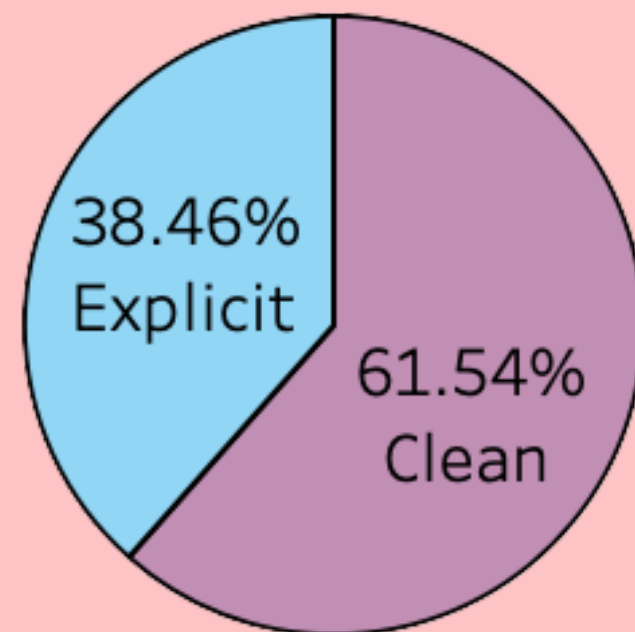
DATA + CLEAN
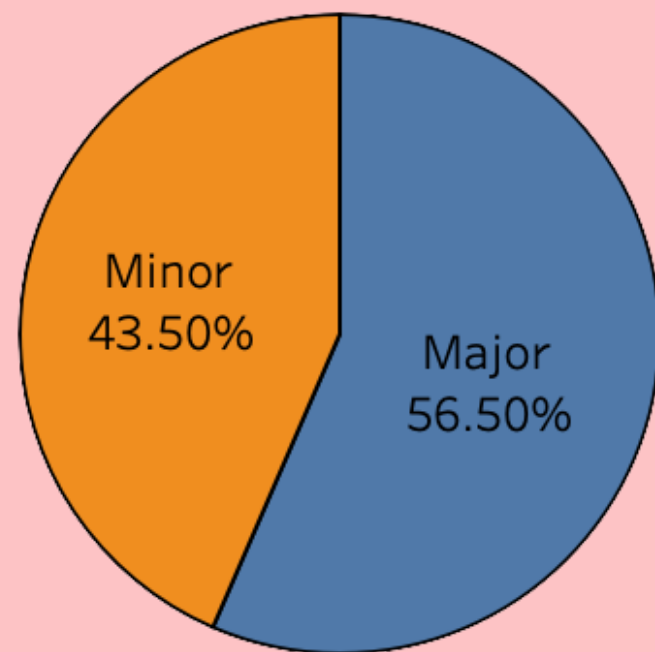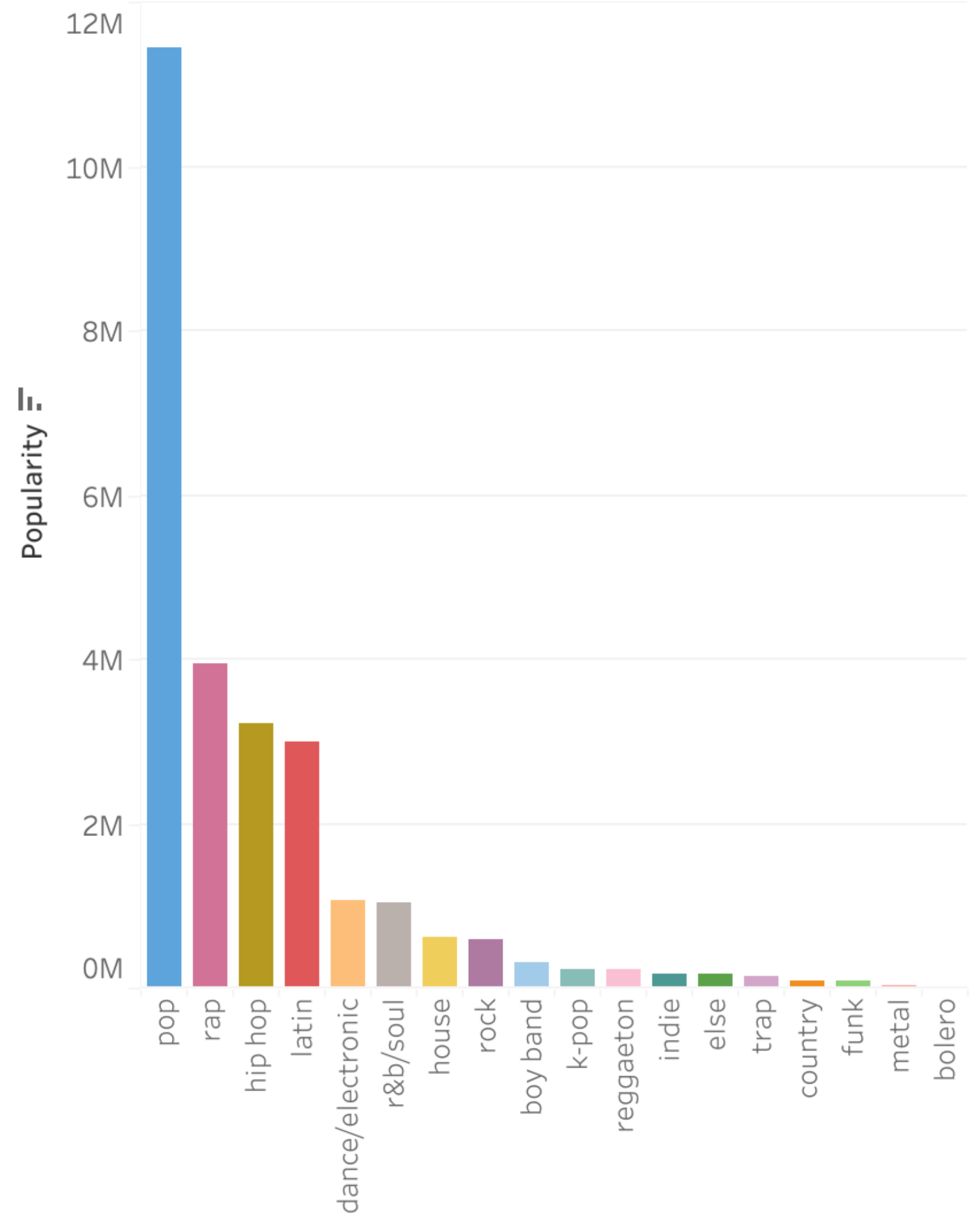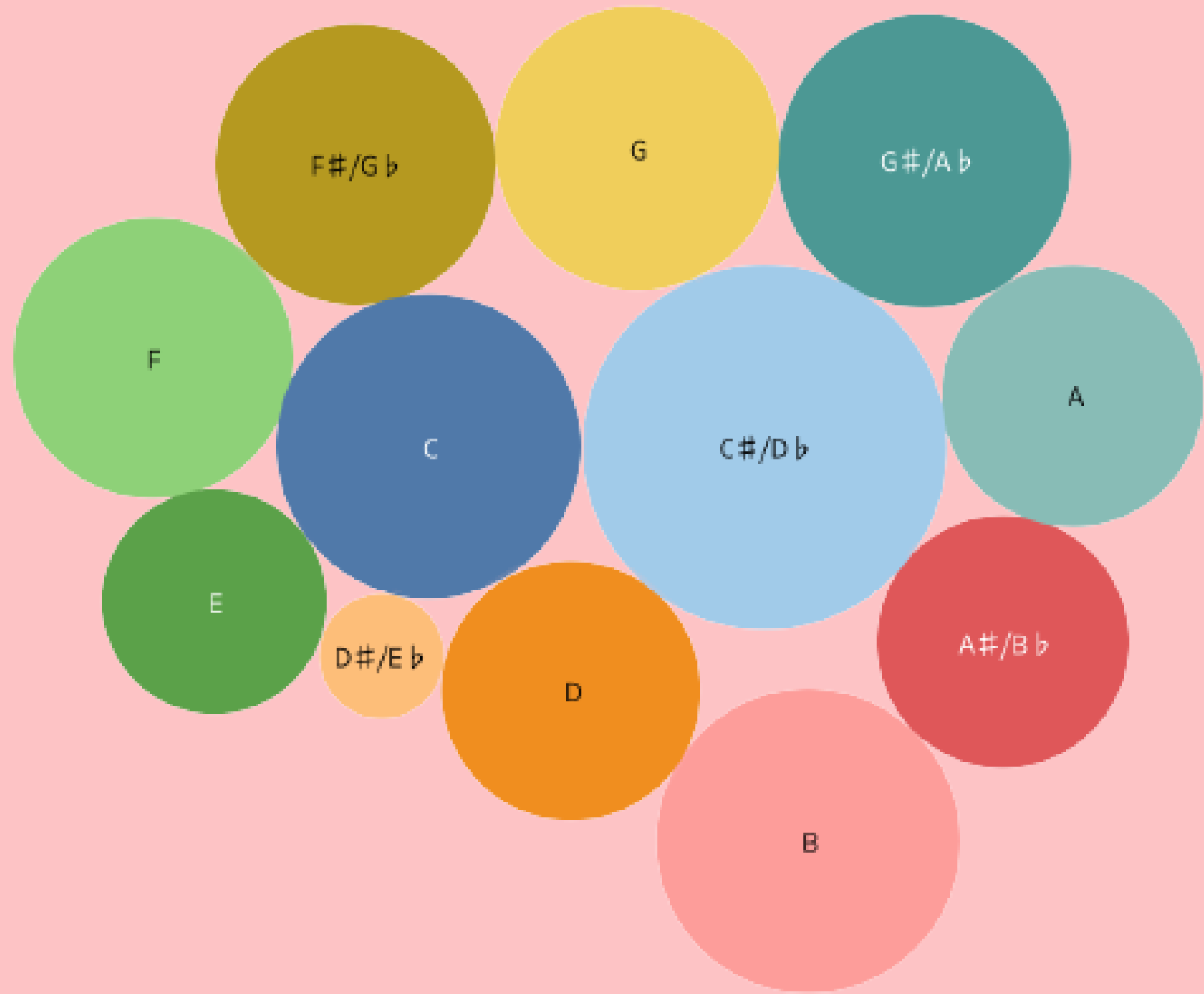
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EDA

2

GRAPHICS + FINDINGS

3

Variables

- Popularity
- Danceability
- Key
- Mode
- Energy
- Loudness
- Speechiness
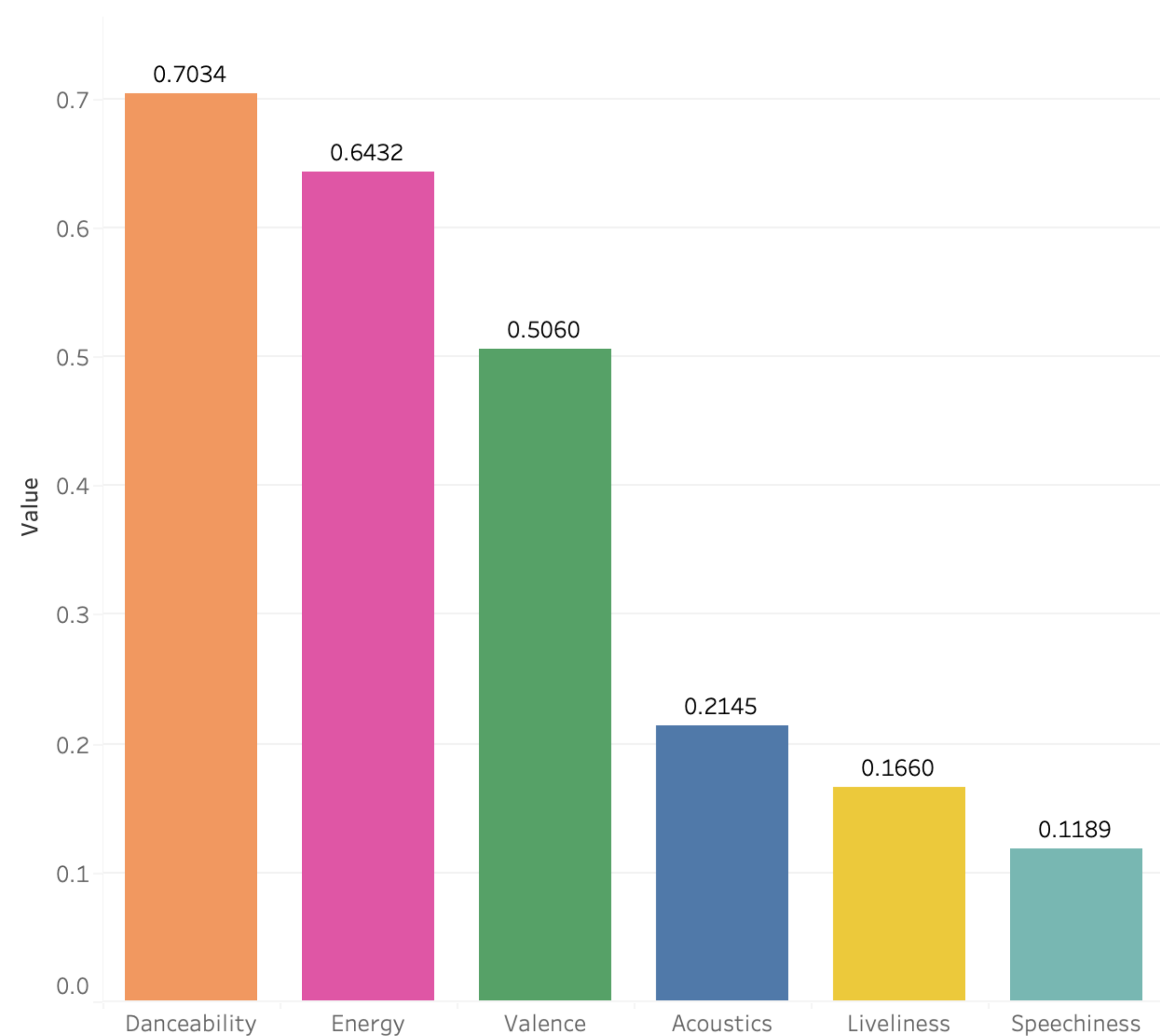- Acousticness
-Instrumentalness
- Liveliness
- Valence
-Tempo

Popularity based on artist, explicitly and mode

Minor
43.50%

Major
56.50%

38.46%
Explicit

61.54%
Clean

Artist	Popularity
Ed Sheeran	
Billie Eilish	
Post Malone	
Drake	
Ariana Grande	
XXXTENTACION	
Travis Scott	
Dua Lipa	
The Weeknd	
Juice WRLD	
Imagine Dragons	
Lewis Capaldi	
Harry Styles	
Khalid	
Shawn Mendes	
Taylor Swift	
Tones And I	
Post Malone - 21 Savage	
Lil Uzi Vert	
Halsey	
Sam Smith	
Maluma	
Bad Bunny	
Ozuna	

0K   100K   200K   300K   400K   500K   600K

Popularity

Popularity based on key and genre

Popularity

Value (y-axis)

Feature	Value
Danceability	0.7034
Energy	0.6432
Valence	0.5060
Acoustics	0.2145
Liveliness	0.1660
Speechiness	0.1189

Duration
2075
300 — 9500

Tempo
120
45 — 215

Loudness
-5.81
-35 — 1.5
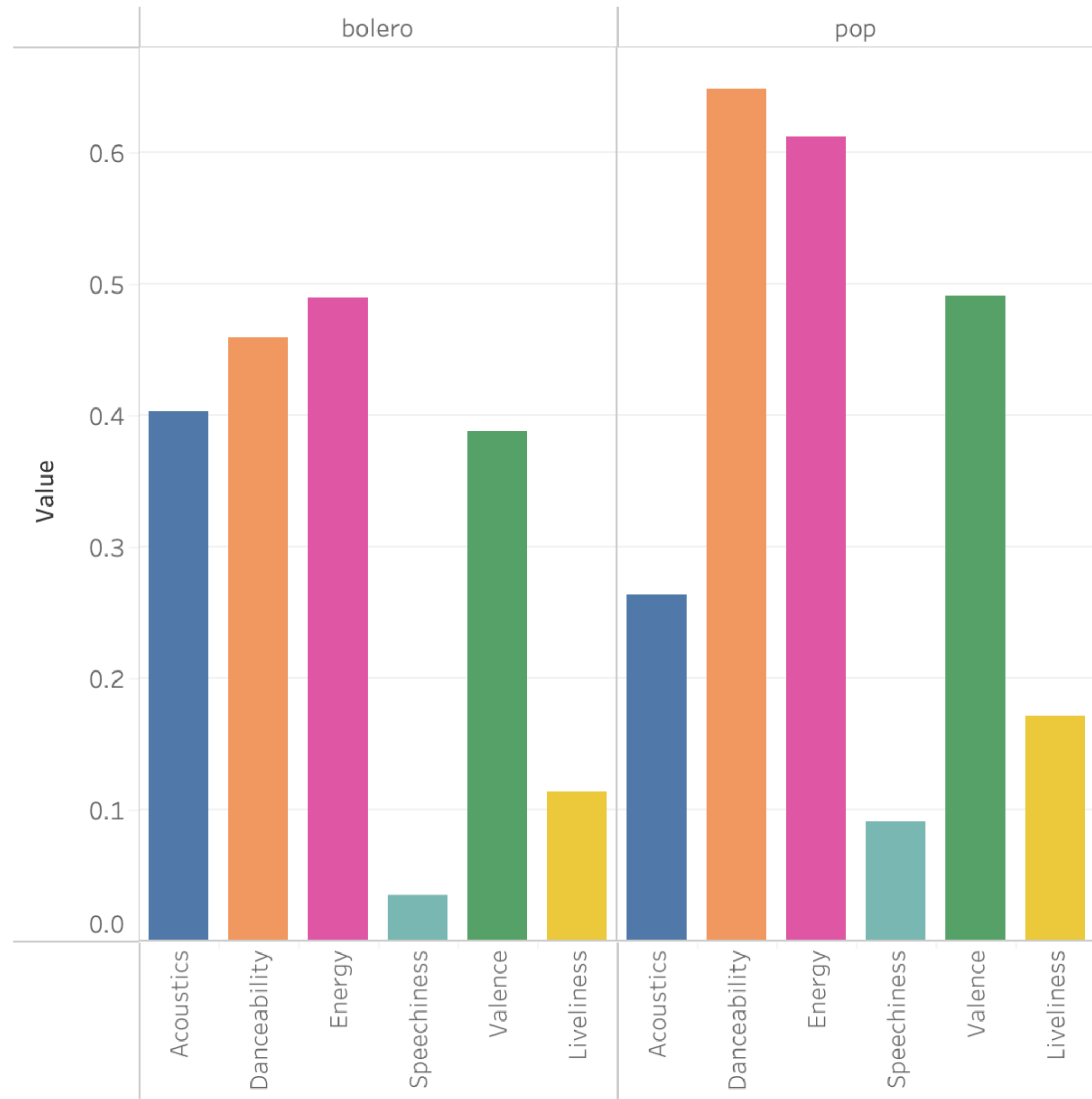
The variables based on genre and popularity

Findings -- The Formula

Variable	Inferences
Genre	Pop
Mode	Major
Key	C#/Dd
Loudness	-5.81
Tempo	120.25
Duration (sec)	2074.59
Valence	0.51
Acoustics	0.2145
Energy	0.64
Danceability	0.70
Speechness	0.12
Liveliness	0.17
Single/Album	Single

Any Questions