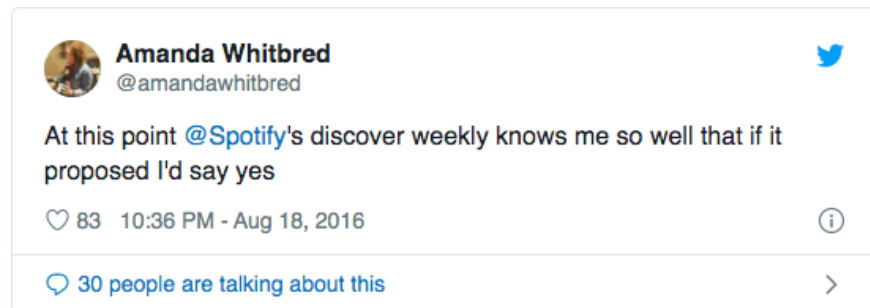




Who doesn't love Mondays?

No one - you'd say. However, Spotify releases this little golden gem of a playlist called **Discover Weekly**. It's filled to the brim with new songs that I haven't heard before. I'll almost always find my new jam for the next few weeks on it. But, how do they make it?



If you are interested in finding out how Spotify performs this witchery click [here](#).

Get better recommendations the more you listen.

Putting together my wanna be programming skills with my not so wanna be Spotify addiction, I tried to figure out how to build my own recommendation system, as well as some fun Exploratory Data Analysis along the way.

Here is my Project git folder in case you'd like to check the code.

The witchery starts with the use of Spotify API to create an app within the Spotify developer environment. After creating a developer's account and an application environment I'm able to access data on any public playlist out there.

Luckily for us, Spotify provides us a way to do that — the Audio Feature Object aka **Features!!**

Let's take a look at each feature.

TEMPO. How many beats per minute (BPM) does each song have?

- Hip Hop 85–95 BPM
- Glitch Hop 105–115 BPM
- Techno 120–125 BPM
- House & Pop 115–130 BPM
- Electronic 128 BPM
- Reggaeton >130 BPM
- Dubstep 140 BPM

ENERGY. Measure of intensity and activity.

Typically, energetic tracks feel fast, loud, and noisy. For example, death metal has high energy, while a Bach prelude scores low on the scale.

DANCEABILITY.

Danceability describes how suitable a track is for dancing based on a combination of musical elements including **tempo, rhythm stability, beat strength, and overall regularity**.

Spoiler alert: Lana Del Rey does not contribute for high danceability level.

MODE. Indicates the modality (major = 1 or minor= 0) of a track.

KEY. The estimated overall key of the track.

E.g. 0 = C, 1 = C#/Db, 2 = D, and so on. If no key was detected, the value is -1.

ACOUSTICNESS. 0.0 to 1.0 of whether the track is acoustic.

VALENCE. Musical positiveness conveyed by a track.

This is one of the most interesting metrics that Spotify produces:

- Tracks with high valence sound more positive (e.g. happy, cheerful, euphoric)
- Tracks with low valence sound more negative (e.g. sad, depressed, angry).

Spoiler alert: Lana Del Rey does not contribute for high valence level.

LOUDNESS. The overall loudness of a track in decibels (dB).

Values typical range between -60 and 0 db.

LIVENESS. Detects the presence of an audience in the recording.

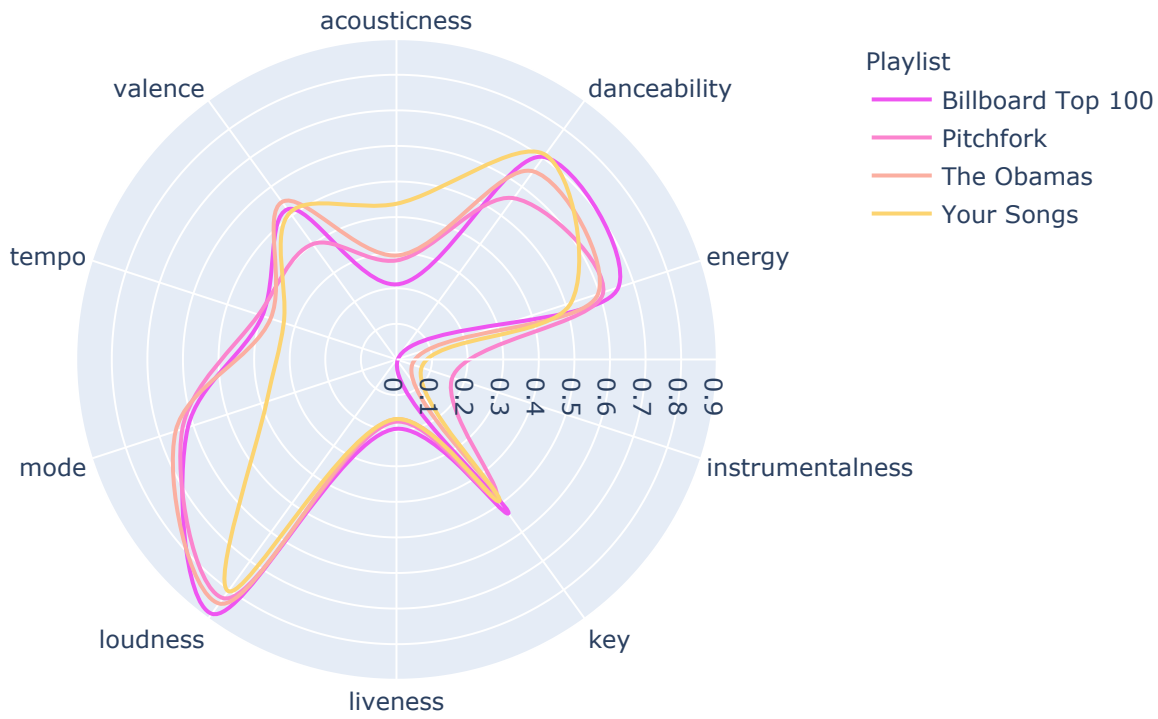
- A value above 0.8 provides strong likelihood that the track is live.



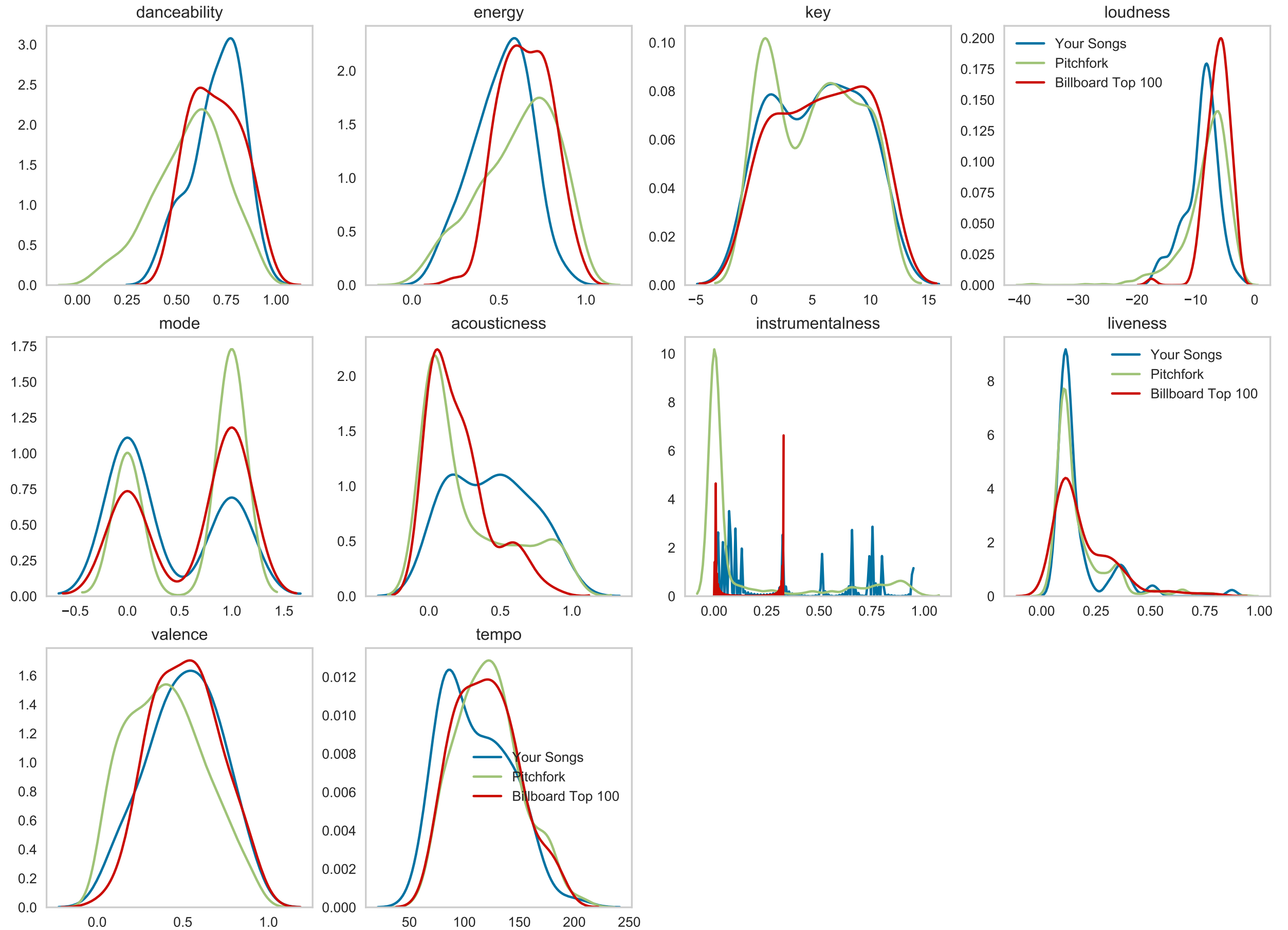
In the next pages let's analyse your musical taste and compare it with some famous references.



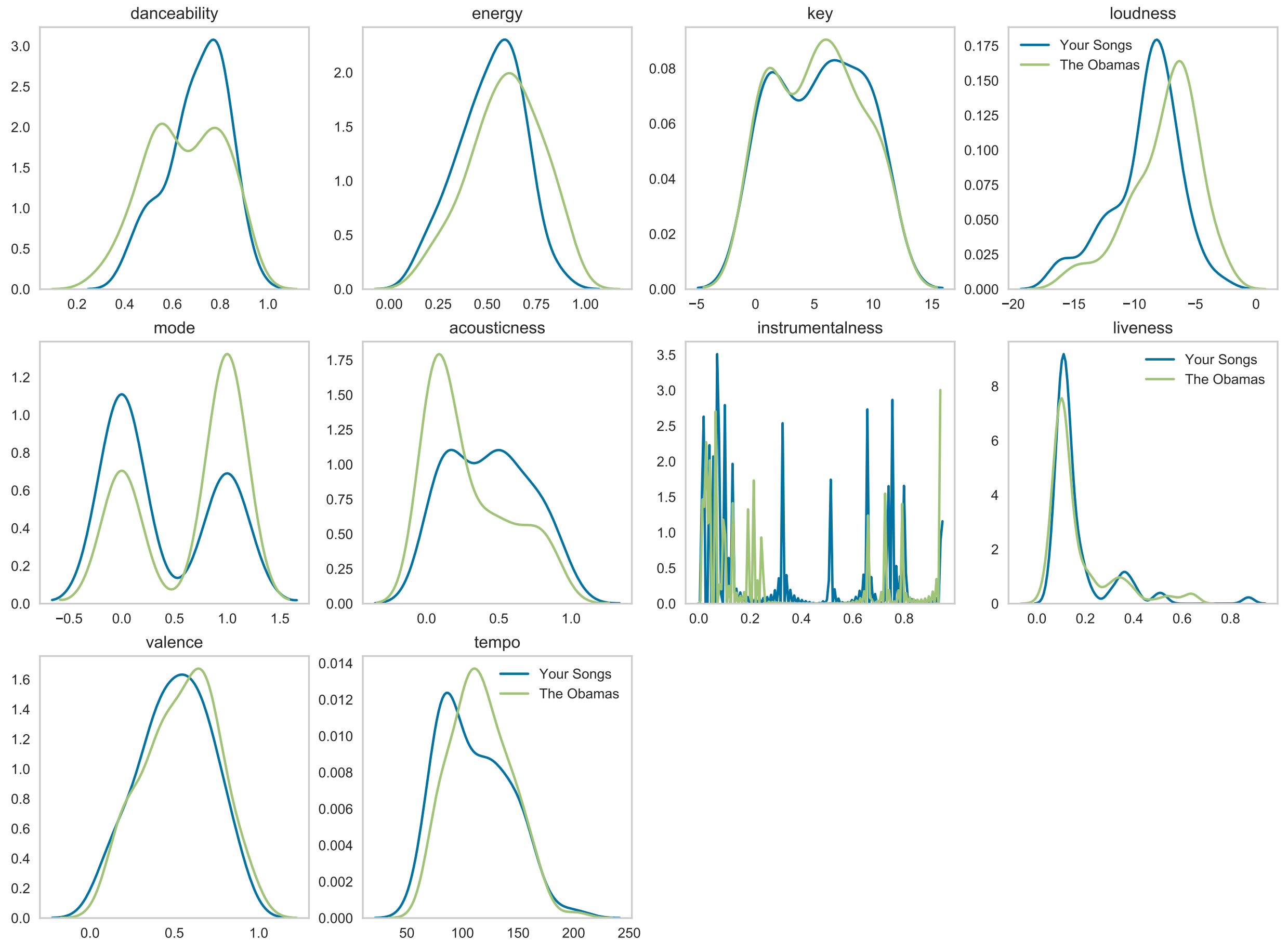
Mean Values of Each Playlist Features



Hipster or Mainstream?



You an Obama?



	Song Recommendation	Artist
20	A Nivel De... - Ao Vivo	João Bosco
187	SLD (Quiet Storm Hour)	E. Jones
241	Walking Into Sunshine	Central Line
328	Act Like You Know	Fat Larry's Band
691	Blind Man	Xavier Omarr
841	Waters of March (Les Eaux de Mars) - French Version	Zap Mama
921	Don't Mess With My Man	Lucy Pearl
1405	Barely Friends	DRAMA
1615	Doce	Boogarins
1616	Do Céu e da Terra	Benjamim
2047	Souvenir - Radio edit	Feu! Chatterton
2232	Oba, Lá Vem Ela	Jorge Ben Jor
2244	Sangue latino	Secos & Molhados
2456	Glory Box	John Martyn
2497	Everything of My Heart	Parov Stelar
3087	Ship To Wreck	Florence + The Machine
3121	I've Been Waiting for Her	Mac DeMarco
3246	Fever	The Black Keys
3828	Deadly Valentine	Charlotte Gainsbourg
4550	Binz	Solange
4686	Lua (feat. MARO)	MARO
5005	Sans lendemain	La Riviera
5096	Strawberries	Caamp
5709	Trofeo	Sech
6409	Don't Start Now	Dua Lipa
6543	Combachy (feat. MC Rebecca)	Mc Rebecca
6575	Tempo (feat. T3y T3y T-Rex, LON3R JOHNY & BISPO)	Bispo
6641	Sessão do Descarrego	Dfideliz
7277	Text	Darkstar
7476	About A Girl	Nirvana
7657	History Eraser	Courtney Barnett