Data used: GTZAN Dataset - Music Genre Classification

Librosa and Essentia:

- Tempo
- Energy
- Loudness
- Danceability
- Loudness (Essentia)

	,	,								
	energy	loudness_librosa	danceability	loudness_e	ssentia 🖽					
count	999.000000	999.000000	999.000000	999	9.000000					
mean	0.130826	-55.592362	1.345035	5 (0.874498					
std	0.065671	7.905616	0.375967	,	0.194330					
min	0.005270	-75.975586	0.692178	3 (0.002467					
25%	0.086566	-61.561386	1.084862	2 (0.885666					
50%	0.122181	-54.447525	1.296022	2	0.952602					
75%	0.175621	-49.416441	1.533512	2 (0.972000					
		-35.390053	3.923712)	0.988212					
max	0.397734	-33.390033	3.323712	•	0.300212					
max	0.397734 danceabilit		loudness			instrumentalness	liveness	valence	tempo	•
count	danceabilit	ty energy	loudness			instrumentalness	liveness 114000.000000	valence 114000.000000	tempo 114000.000000	
	danceabilit	energy 114000.000000	loudness	speechiness	acousticness					
count	danceabilit	energy 114000.00000 00 0.641383	loudness 114000.000000	speechiness 114000.000000	acousticness 114000.000000	114000.000000	114000.000000	114000.000000	114000.000000	
count	danceabilit 114000.00000 0.56680	energy 00 114000.00000 00 0.641383 42 0.251529	loudness 114000.000000 -8.258960	speechiness 114000.000000 0.084652	acousticness 114000.000000 0.314910	114000.000000 0.156050	114000.000000 0.213553	114000.000000 0.474068	114000.000000 122.147837	
count mean std	danceabili1 114000.00000 0.56680 0.17354	energy 114000.00000 114000.00000 00 0.641383 42 0.251529 00 0.000000	loudness 114000.000000 -8.258960 5.029337	speechiness 114000.000000 0.084652 0.105732	acousticness 114000.000000 0.314910 0.332523	114000.000000 0.156050 0.309555	114000.000000 0.213553 0.190378	114000.000000 0.474068 0.259261	114000.000000 122.147837 29.978197	
count mean std min	danceabili1 114000.00000 0.56680 0.17354 0.00000	energy 114000.000000 114000.000000 00 0.641383 42 0.251529 00 0.000000 00 0.472000	loudness 114000.000000 -8.258960 5.029337 -49.531000	speechiness 114000.000000 0.084652 0.105732 0.000000	acousticness 114000.000000 0.314910 0.332523 0.000000	114000.000000 0.156050 0.309555 0.000000	114000.000000 0.213553 0.190378 0.000000	114000.000000 0.474068 0.259261 0.000000	114000.000000 122.147837 29.978197 0.000000	
count mean std min 25%	danceabili1 114000.00000 0.56680 0.17354 0.00000 0.45600	energy 00 114000.00000 00 0.641383 42 0.251529 00 0.000000 00 0.472000 00 0.685000	loudness 114000.000000 -8.258960 5.029337 -49.531000 -10.013000	speechiness 114000.000000 0.084652 0.105732 0.000000 0.035900	acousticness 114000.000000 0.314910 0.332523 0.000000 0.016900	114000.000000 0.156050 0.309555 0.000000 0.000000	114000.00000 0.213553 0.190378 0.000000 0.098000	114000.00000 0.474068 0.259261 0.000000 0.260000	114000.000000 122.147837 29.978197 0.000000 99.218750	11.

Further Investigation for variable:

- Acousticness
- Instrumentalness
- Liveness
- Speechiness
- Valence
- 1. Approximation from libraries
- 2. Using available Dataset to train model to predict above variables:
 - a. Data Used: Spotify Tracks Dataset
 - i. Acousticness
 - 1. Root Mean Squared Error on test data: 0.68
 - 2. Root Mean Squared Error on training data: 0.67
 - ii. Instrumentalness
 - 1. Root Mean Squared Error on test data: 0.87
 - 2. Root Mean Squared Error on training data: 0.87
 - iii. Liveness
 - 1. Root Mean Squared Error on test data: 0.97
 - 2. Root Mean Squared Error on training data: 0.96
 - iv. Speechiness
 - 1. Root Mean Squared Error on test data: 0.97

2. Root Mean Squared Error on training data: 0.98

v. Valence

- 1. Root Mean Squared Error on test data: 0.85
- 2. Root Mean Squared Error on training data: 0.86