Criteria for song emotions categories

Song Metadata key

* Tempo
  + You know this one; BPM
* Loudness
  + Values typically range between -60 and 0 db, with -60db being no sound and 0db being extremely loud
* Energy
  + 1.0 represents high confidence the track is acoustic.
    - For example, death metal has high energy, while a Bach prelude scores low on the scale. Perceptual features contributing to this attribute include dynamic range, perceived loudness, timbre, onset rate, and general entropy.
* Danceability
  + A value of 0.0 is least danceable and 1.0 is most danceable.
* Key
  + 0 = C, 1 = C♯/D♭, 2 = D, 3 = D#/Eb, 4 = E, 5 = F, 6 = F#/Gb, 7 = G, 8 = G#/Ab, 9 = A, 10 = A#/Bb, 11 = B. If no key was detected, the value is -1.
* Instrumental-ness
  + 1.0 represents high confidence the track is acoustic.

Emotions:

Happy

* Tempo
  + Range between: 110 bpm – 160 bpm
* Loudness
  + Range between: -30dB - -15dB
* Energy & Danceability
  + Range between 0.5 – 0.9
* Key
  + C Ma, G Ma, D Ma,
* Instrumental-ness
  + Range between: 0.0 – 0.5

Hype

* Tempo
  + Range between: 120bpm – 170bpm
* Loudness
  + Range between: -20dB - -10dB
* Energy & Danceability
  + Range between 0.8 – 1.0
* Key
  + E Ma, A Ma
* Instrumental-ness
  + Range between: 0.4 – 0.8

Sad

* Tempo
  + Range between: 60bpm – 90bpm
* Loudness
  + Range between: -50dB - -30dB
* Energy & Danceability
  + Range between 0.1 – 0.4
* Key
  + A m, C Ma, D m, E m
* Instrumental-ness
  + Range between: 0.3 – 0.7

Calm

* Tempo
  + Range between: 60bpm – 100bpm
* Loudness
  + Range between: -60dB - -40dB
* Energy & Danceability
  + Range between 0.0 – 0.3
* Key
  + F Ma, Bb Ma, Eb Ma
* Instrumental-ness
  + Range between: 0.7 – 1.0