NEMO

(time taken = 2 months)

Google Doc Link of the project:
https://docs.google.com/document/d/1olvI5zNLV3NWN-mbUKu4j2GyAc99961Yq4hAtEwjc1Q/edit

Task Title: Detecting emotion (both static and dynamic) from the audio files.

Conferences to check:
- http://ceur-ws.org/Vol-1043/,
- http://ceur-ws.org/Vol-1263/
- http://ceur-ws.org/Vol-1436/

Details of the task:
Also check out the summary of these conferences related to emotion related tasks in music:
For example, one of the working notes paper for such is 2014 conference:
http://ceur-ws.org/Vol-1263/mediaeval2014_submission_33.pdf

In 2013, there was a contest on static evaluation (per song) of arousal/valence values and the very next year 2014 and 2015, there was dynamic evaluation of arousal/valence values (changes in emotion over time in a song).

Journal: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0173392
Also See this reference:
http://journals.plos.org/plosone/article/figure?id=10.1371/journal.pone.0173392.t005

Main reference paper implemented for music:
http://ceur-ws.org/Vol-1436/Paper15.pdf

Dataset: Download the DEAM data set from here: http://cvml.unige.ch/databases/DEAM/
It contains audio files and already extracted features.

Main source code file: SVR.py (It requires you to configure the directories properly, and install few dependencies.

Please see the comments in the code to understand about them. There are detailed comments in the code for that purpose only.

If you want to extract features yourself, you need to install OpenCV and opensmile-2.3.0 for that.