Audio Analysis

Tone Expression:

DataSet: ravness speech dataset.

1. Preprocess.ipynb
   1. It is used for preprocessing the audio data from the dataset.
   2. Features are extracted from the dataset and the file audiodata.csv is creadted.
2. ToneModel
   1. Data from audiodata.csv is normalized.
   2. This does the training on the data from audiodata.csv
   3. 89% accuracy is achieved and the model was saved.
3. Predict.ipynb
   1. This files is a sample file for showing how the prediction can be done
   2. Also the pitch of the audio will be measured in this file.

Audio Text Analysis

File: AudioTextAnalysis.ipynb

1. In this file we will be obtaining the information related to the text of the audio.
2. Google’s Speech to text API is used for getting text from an audio file
3. Google’s API will also return the confidence.
4. Speech rate is measured using the (length of words)/(total length of audio)
5. Now NLTK is used for the Sentiment Analysis of the test that is for classifying the words of the text.