Emotion recognition from speech model

Explanation

- I downloaded my dataset of speech from Kaggle for model building. Then followed by importing important modules like **NumPy**, **pandas**, **matplotlib. pyplot, librosa.display, IPython.display, keras.utils** etc and then imported dataset.

- Then I filter the data by removing non-required rows and highlight the angry, happy, neutral and sad gestures.

- Then I performed **Exploratory data analysis** and plotted wave plot and spectrogram for each emotion along with the audio path for visualization.

- Then I perform feature extraction part using **MFCC** and apply it to the dataset for feature extraction and convert it into **NumPy** array followed by performing hot encoder.

- Then comes the final part of model building, for that we import **LSTM** model from **keras**. We perform training on **LSTM** model and fit our model with **validation split of 0.2**

Challenges I Faced

- First issue I faced while importing dataset because it was in .wac format.

- Then while plotting wave plot and spectrogram I faced an error of converting the dataset into NumPy array. It takes lot of time to recognize this error.

- While modelling I faced error in sequential LSTM because of summary part.