Q530 Homework 2: MATLAB

Due date: 12 September, midnight

1. Speech segmentation: Using MATLAB to segment a whole sound file into individual words.

- Two sound files can be downloaded from the course website.
- Load the files into MATLAB.
- Define a sliding window with the length 30 and calculate Root Mean Square (RMS) across a whole file.
- Plot the RMS curve.
- Develop a method to detect word boundaries based on RMS.
- Implement your method.
- Write each word to an individual wav file.
- Write a report to describe your method, present your results and discuss the difference between two sound files.

2. Write a function [argout1] = compare_answer(argin1, argin2) while argin1 and argin2 are two integer sequences (e.g. [a b c d] and [a c b d]) , and the output is the similarity of these two strings. The similarity metric is based on the number of switching operations needed to transform one sequence into the other one. More details in class.