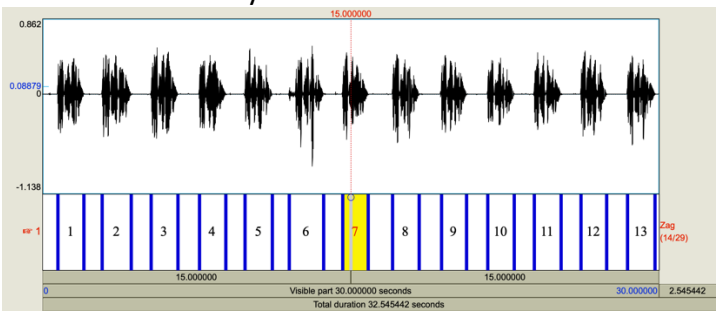
1. Open the FLAC file from brightspace, click view > view (again, but with different bottom) > sound scaling > sound strategy “fixed height”

2. Select the sound > annotate > to textgrid

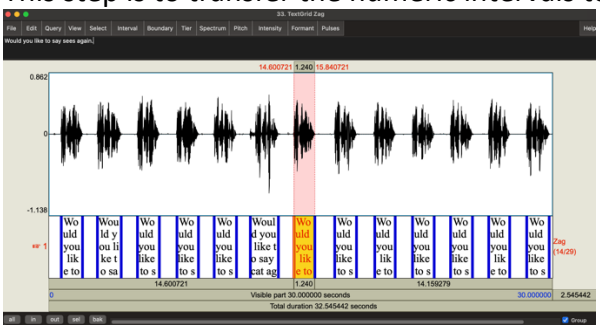
3. Open > read Strings from raw text file > open zag.txt from the brightspace > now you have a string file

4. Make a new praat script > copy and paste the MarkIntervals script from the website > select only the sound > run the script > save the script.

   In this step you should be able to see all the non-empty intervals have been marked numerically.

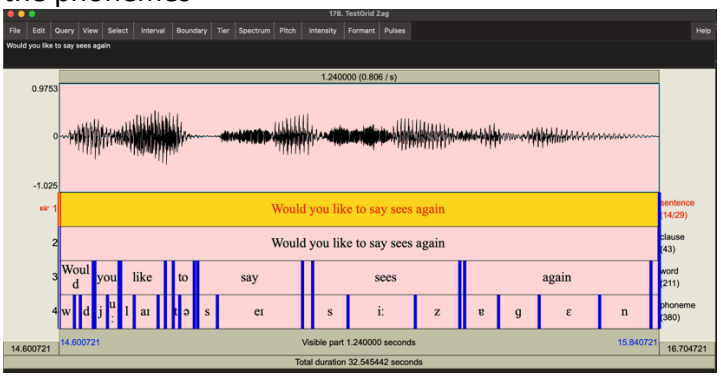


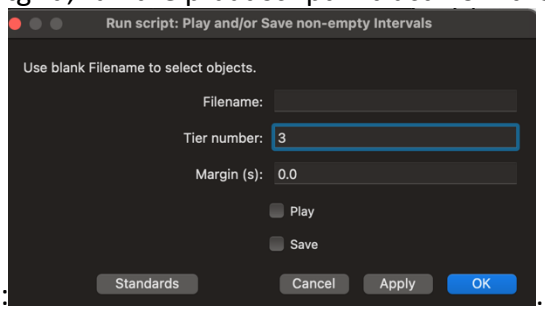

5. Make a new praat script > copy and paste the ReplaceLabels script from the website > select sound, textgrid, and string > run the script > save the script.
   This step is to transfer the numeric intervals to the sentence itself

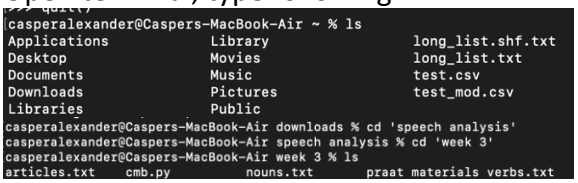


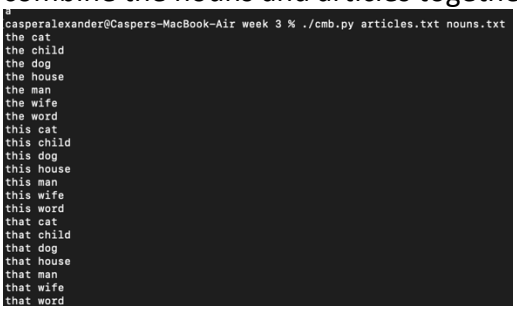

6. Click new > sound > speech synthesizer

7. Make a new praat script > copy and paste the Annotate.praat from the website > select sound, textgrid, and the speech synthesizer (preferably male voice because it has more precise phoneme boundaries) > run the script > now you have a new text script object > select together with the sound, view it. You should be able to see all the phonemes



8. Select the sound and the newest textgrid, run the praat script Extract from the website, the setting should look like: 

. Then you should be able to see all the phonemes in your directory.
9. Create three plain text documents (sometimes it doesn't automatically save as plain text doc, you need to manually go to formant > to plain text doc) by using TextEdit. One for the articles, one for nouns, one for verbs. After you typed in all the words you want to put in the text file, you need to put the active cursor in the next line instead of directly after the word
10. Open terminal, type following:


SIDE NOTE: when you are finding files name which has space in between, like speech analysis, you need to use a single quote otherwise the computer won't read it.
Then type chmod +x cmb.py and then ./cmb.py articles.txt to let the computer list out all the articles you have in the text doc. Then ./cmb.py articles.txt nouns.txt to combine the nouns and articles together, which will look like:


Eventually, type ./cmb.py articles.txt nouns.txt verbs.txt uto combine all the words you've saved in the plain text format. You can even just repeat one code as: ./cmb.py articles.txt nouns.txt verbs.txt nouns.txt, then the nouns will appear twice
11. Type: ./cmb.py articles.txt nouns.txt verbs.txt articles.txt nouns.txt > sentences.txt to condense them into one text file. Then you name it as sentence.txt.

12. Open the article, verbs, nouns text file in praat with string from raw text file > then select them, run the praat script cmb from the website. Then you should be able to see a new string generated.

13. Create a new sound as pure tone, save it as WAV file and named it as Assignment.4.wav, it has to be under the sounds file and the WAV file name has to be exactly above.

14. Select the newest string, run the concatwords.praat script from the website, set the nrSentences as 3 (if you set it as 0 it will generate all the sentence which takes very long).

15. Then you should have the Assignment.4.wav filed with said-out-loud sentences!