CSE 5525: Foundations of Spoken Language Processing
Week 1 practical session: spectrograms and phonetic labeling

Group instructions:

1) Open up audacity
2) Open the file "samp_sa1.aup" in Tutorials/Week1
3) In the second line down, click on the pull down arrow by "samp_sa1", and select "spectrum". This will give you a spectrogram
4) You can make the waveform larger by clicking on the 0.0 in the first line.
5) Zoom in/out by using the magnifying glass controls. Try starting from full zoom-out.
6) You can play the whole waveform by clicking the play (triangle) button in the button bar.
7) You can play individual words by clicking on a word in the Words line to select it, then using the triangle button to play.
8) You can play individual phones by clicking on phones and playing as above.

At this point, play some of the sounds that are in this file. What do you notice about different types of sounds? Can you find sounds that "look" the same? What do they have in common? Make a list of the kinds of sounds you see, and what the spectrogram looks like for each kind of sound.

9) Now load "sa1.aup", which is the same sentence from a different speaker. You'll notice that the phone tier is empty, but the word tier is filled in.
10) Try to label this data phonetically given the handout sheet and what you've seen so far. This may not be easy, and different people will have different ideas. Try to come to a consensus.
    a. Place the cursor at the right hand side of where you want the label. Drag back to the previous label until it lights up (yellow).
    b. You can play this segment before labeling by pressing the space bar.
    c. Type the label you want and it will appear.
    d. The first label should be "h#" (silence).
    e. If you make a mistake you click on the label and then press delete.
11) If time permits, try annotating sa2.aup, which is a different sentence.
12) Export your label file (File>Export Labels…) with a unique group name and then we can copy it to the memory stick so I can display all of the answers.
    a. Make sure to delete the words and sentences tier before exporting so we only get the phones.
13) We will reconvene around 1:45 to discuss.