Assignment #7

CS 245, Spring 2018

Due Thursday, March 15

I will give you three WAVE files: `moo2.wav`, `oboe.wav`, and `violin.wav`. For each of these files, you will need to

1. determine the speed up factor needed to have the sample sound a frequency of 440 Hz
2. find reasonable loop points.

The Audacity program can be used to help you with both of these tasks. In particular, the *Plot Spectrum* function will allow you to identify the fundamental frequency, from which you can determine the speed up factor.

For each of the three files, `<name>.wav`, you will submit a separate text file. The text file should be named `<name>.txt`, and should have two lines containing the above two pieces of information:

```
<speed up factor>
<loop start index> <loop end index>
```

The speed up factor should be a floating point value, while the loop start and end indices should be nonnegative integers. Loop points should be chosen so that looping the sample between these two points is smooth, with no audible clicks.

As an example, the contents of the `la.txt` file are

```
2.4581
34141 42979
```

When the program `cs245_h7.cpp` (which I will supply) is compiled and run, an output file is produced by reading in the `la.wav` file and using the supplied articulation information.

Your submission for this assignment should consist of three files: `moo2.txt`, `oboe.txt`, and `violin.txt`.