Music Synthesis

Adina Goldberg - agoldberg@comm.utoronto.ca; David Ding - davidy.ding@mail.utoronto.ca

Name:	**Student No.:**	**Lab Date:**
Name:	**Student No.:**	**Grade:**

Note: Each box is worth 1pt.

2. Build some chords and listen

- *Write down your last line of code from* `get_freq`.

  `f=`

- *What is the frequency of key number 9?*

  Hz

- *Write down the line of code inside the for loop in* `get_chord_wave`.

  `X = X +`

3. Visualize frequency of recorded and synthesized sounds

- *What* differences *do you notice between the time domain plots of the real and synthesized signals?*

- *What* similarities *do you notice between the frequency domain plots of the real and synthesized signals?*

- *What* differences *do you notice between the frequency domain plots?*

- *What does the spectrogram have in common with your frequency domain C chord plot?*

4. Synthesize a song

- *Write down your second argument in the call to* `get_chord_wave` *inside* `get_song_wave`.

- *Before using the ADSR envelope, use audiowrite to save your song to a file called 'first.wav' with 44100 sampling rate.*

- *Generate the final version of your song and use audiowrite to save your song to a file called 'second.wav' with 44100 sampling rate.*

- *Include the spectrogram plot for your song and attach as the second page to this document.*

Please submit:
*- ***This*** document completed*
- first.wav
- second.wav
- Spectrogram output of second.wav attached to this document