Full Name: _____

EEL 3135 (Spring 2021) – Lab #06 **Due: Mar. 9 - Mar. 15 (On Lab Day)**

Group Question

- This group problem is extra credit on your lab assignment.
- Work as a group to complete this problem. It is designed to take an hour or less.
- You may get help from your TA (but he or she will not give you direct answers).
- Have fun!

Question #1: This exercise gives you a new file with noise added on top at different frequencies. Design a filter that filters out all of the noise and identify the song.

(a) Load in the `Noisy_Finale.wav` file. This places `x` and `fs` into your workspace.

(b) Identify the frequencies where the noise occurs. Provide the frequencies in Hz.

(c) Design a single filter that removes the noise. Plot the impulse response for that filter.

(d) Submit the filtered / denoised song.