1) Clap Counter

I used **function** of MATLAB to take input from command window. Then, I read the wav files by **audioread**. After that, I took mean of two samples since these are stereo. Since they are vectors, I found their length by multiplying itself with its transpose. Then, I specified a threshold **0.08**. If the number of points greater than or equal to the threshold is less than or equal to 2, I output **'One clap'** otherwise **'Two claps'.**

2) Pitch of a sound

The example requiring to rearrange the data so that frequency is halved and the example requiring to halve the sampling frequency played the same sound since on the one side we have 2*N samples and Fs frequency, and on the another side we have N samples and Fs/2 frequency; thus, both sides have the same sample # / frequency ratio. It means that they play same sound and duration.

3) Quadratic Spline Interpolation

In my figure, there are four convex intervals and four concave intervals; however, in the actual figure all the intervals are concave. Secondly, my spline's maximum value is greater than the actual one. In the concave intervals, my figure is similar to the actual; however, convex intervals look different than the original.