demo 07

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Question 04

Modify the demo program mic_filter.py to process the input signal x(t) so that the output signal is

$y(t) = x(t)cos(2\pi f_0 t)$

where $f_0 = 400$ Hz. This is amplitude modulation. The output signal $y(t)$ should both be played to the speaker (or headphones) and saved to a wave file. What is the effect of this on the voice signal? Submit your wave (wav) file of yourself talking, as well as your code.

Answer:

Based on audible inspection, we can conclude that there is a change in the voice signal when the output signal is altered. The amplitude on the voice signal changes and the voice gets fluctuated which results in the different sound as compared to the difference equation. The voice gets deteriorated after some time as well.