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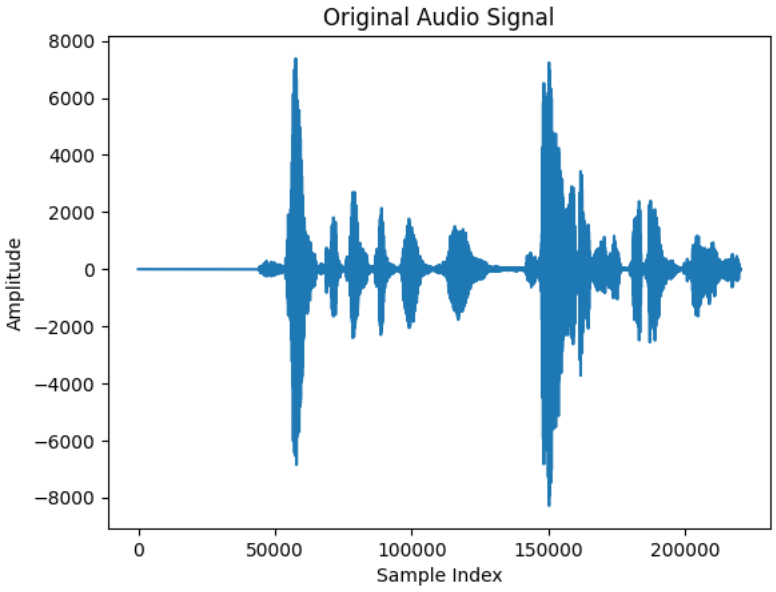
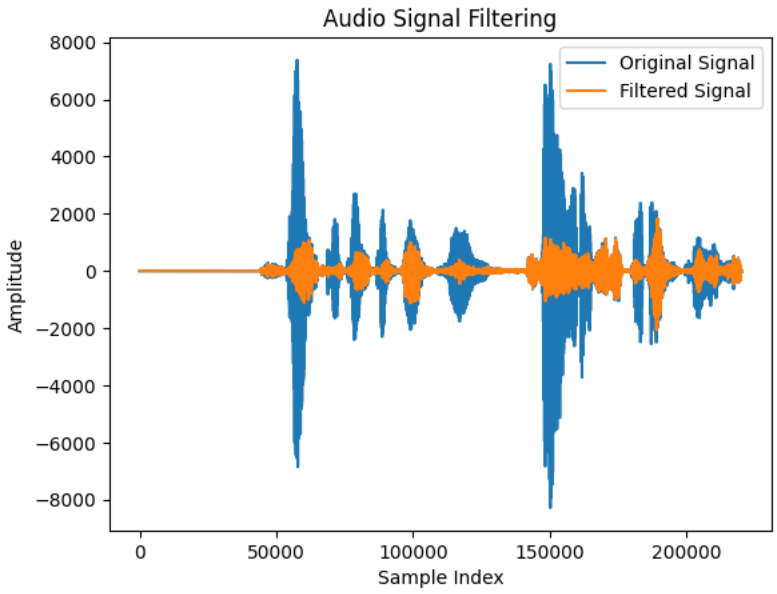
Experiment 5 (Application)	

PROBLEM DEFINITION:	Filter the Audio Signal Captured in the presence of noise and improve the quality of sound.
ALGORITHM:	1. 1. Record Audio in the presence of noise with Fs = 8000 Hz ==> x[n]. 2. Play the recorded signal x[n] and observe the quality of sound. 3. Design FIR Low Pass Filter using MATLAB filter design Tool. Take Fpass = 2000Hz, Fstop = 3000Hz, Fs = 8000Hz. 4. Filter the audio signal x[n], i.e. perform Linear Convolution of x[n] and h[n] using either OAM/OSM based on FFT ==> y[n]. 5. Play the filtered signal y[n] and observe the quality of sound.
EXPERIMENTATION AND RESULT ANALYSIS:	
RESULT:	

	 Audio Signal Filtering Original Signal Filtered Signal Amplitude 8000 6000 4000 2000 0 −2000 −4000 −6000 −8000 0 50000 100000 150000 200000 Sample Index