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Experiment 5	
Problem Statement	Filter the Audio Signal Captured in the presence of noise and improve the quality of sound
ALGORITHM:	<ol style="list-style-type: none"> 1. Record Audio in the presence of noise with $F_s = 8000$ Hz $\Rightarrow x[n]$. 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 $F_{pass} = 2000$ Hz. $F_{stop} = 3000$ Hz $F_s = 8000$ 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 $\Rightarrow y[n]$ 5. Play the filtered signal $y[n]$ and observe the quality of sound

RESULT:

