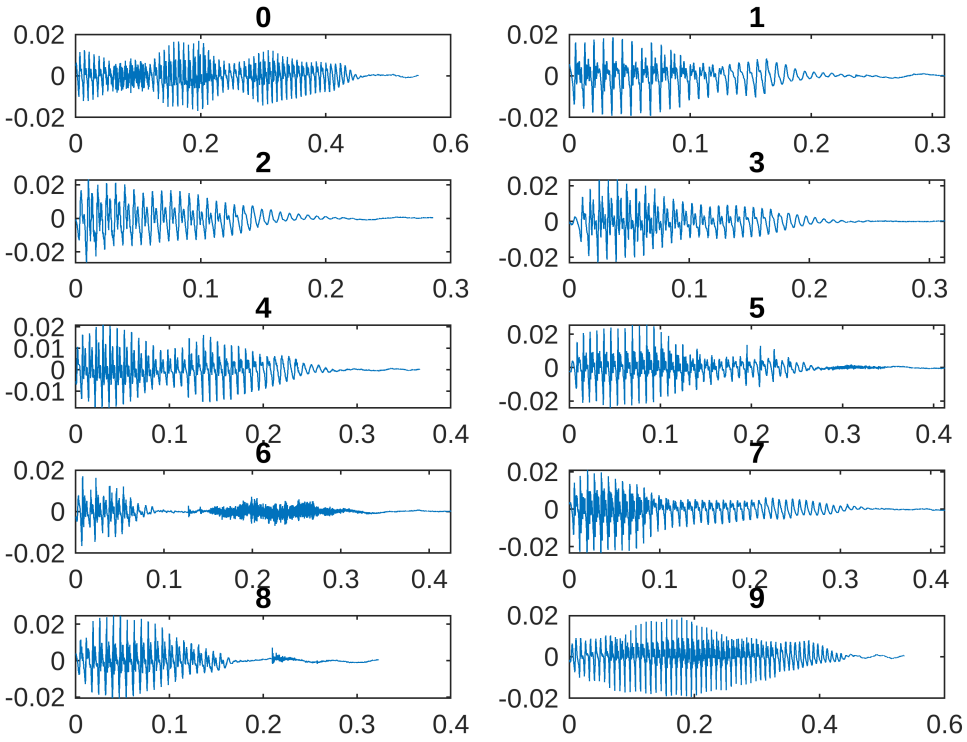
```
% Duration of the longest audio
maxDuration = 0;
for i = 0:9
    % y is the audio signal
    % Fs is the sampling frequency
    [y, Fs] = audioread(sprintf("Samples/%d_16_%d.wav", i, 0));

    % Ts is the sampling period
    Ts = 1 / Fs;
    % [rows, cols] are the dimensions of y
    [rows, cols] = size(y);

    % t is the time vector
    t = 0:rows - 1
    % t is the time vector in seconds
    t = t .* Ts;

    if(t(end) > maxDuration)
        maxDuration = t(end)
    end

    % Frame size in seconds
    frameSize = 0.01;


    % Calculate frame energy
    frameSamples = round(frameSize * Fs);
    % Calculate number of frames
    numFrames = floor(rows / frameSamples);

    % Calculate frame energy, the sum of squares of the samples in the frame
(not the integral because we are in the discrete domain)
    frameEnergy = zeros(numFrames, 1);
    for j = 1:numFrames
        frame = y((j-1)*frameSamples + 1:j*frameSamples);
        frameEnergy(j) = sum(frame.^2);
    end
    % End frame energy calculation

    % Find first frame with energy above threshold
    energyThreshold = 0.005;
    startFrame = find(frameEnergy > energyThreshold, 1);


    % Make it so the first index is 0 (startFrame - 1)
    startSample = (startFrame - 1) * frameSamples + 1;

    % Trim audio signal from startFrame onwards
    y = y(startSample:end);
    % Trim time vector from startFrame onwards
```

```
    t = t(startSample:end) - t(startSample);

    % Add silence to the end of each audio signal so that all of them have
maxDuration
    %silence = zeros(round(maxDuration * Fs) - length(y), 1);
    % Concatenate y with silence
    %y = [y; silence];

    subplot(5, 2, i + 1);
    plot(t, y');
    label = sprintf("%d", i);
    title(label);
end
```

```
t = 1×31577
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
maxDuration = 0.6578
t = 1×20170
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×22851
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×28443
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×27676
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×30341
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×33329
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
maxDuration = 0.6943
t = 1×31939
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×20773
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
t = 1×30960
     0     1     2     3     4     5     6     7     8     9    10    11    12 ···
```


0
1
2
3
4
5
6
7
8
9