```matlab
[y,Fs]=audioread('file_example_WAV_1MG.wav');
y=y(:,1);
% a=fread(y,2000);
subplot(2,1,1);
plot(y);
title('plot of voiced part of a signal');
xlabel('sample no');
ylabel('amplitude');
y=y-128;

% pitch is also called as f0,variation of f0 is from 50HZ to 400 HZ
% now if sampling frequency is 8KHZ,and f0=50 HZ,
% THEN NUMBER OF SAMPLES IS Fs/f0=160
% duration (1/f0),that is 20 ms length signal,is one single f0
% f0 between trwo consecutive period is not same ,calelled as jitter
% so it is called quasi periodic signal
% fo depends on emotion analysis
% Techniques for f0 extraction is time domain and frequency domain method
% we find a frame lenth ,or window length,so every window length or frame
% lenth signifies a pitch

for k=1:400
    sum(k)=0;
end
for k=1:400
    for i=1:45
        sum(k)=sum(k)+(y(i)*y(i+k));
        sum(k)=sum(k)/45;
    end
end
subplot(2,1,2);
plot(sum);
title('plot of correlation of a signal');
xlabel('sample no');
ylabel('correlation');


[pks,locs] = findpeaks(auto_corr_y);
[mm,peak1_ind]=max(pks);
period=locs(peak1_ind+1)-locs(peak1_ind);
pitch_Hz=Fs/period
```

```
Undefined function or variable 'auto_corr_y'.

Error in autopitc (line 38)
[pks,locs] = findpeaks(auto_corr_y);
```