In [1]:
```
from scipy.io import wavfile as wav
from scipy.fftpack import fft
import numpy as np
from matplotlib import pyplot as plt
from scipy.io.wavfile import read
import warnings; warnings.simplefilter('ignore')
```

In [2]:
```
def voice(meanfun):

  if meanfun<0.014:
      return("male")
  else:
      return ("female")

for i in range(20):
    data = str(i+1)+'.wav'
    (fs,x) = read(data)
    rate, data = wav.read(data)
    fft_out = fft(data)
    combined = fft(data).ravel()
    meanfunfreeq = sum(combined)/combined.size
    print('data ['+str(i+1)+'] :'+str(meanfunfreeq)+voice(meanfunfreeq))
```

```
data [1] :(5.482367289865091e-13+8.110932375958625e-14j)male
data [2] :(-2.0402151093515337e-13+1.437056277420227e-14j)male
data [3] :(-1.96200087346313e-13-7.357503275486739e-15j)male
data [4] :(-8.390288539088049e-13+7.38148551825928e-15j)male
data [5] :(2.5527581673461583e-12+8.799086268207199e-14j)male
data [6] :(1.378999746881053e-12+1.7084501301965708e-14j)male
data [7] :(-3.945417910418976e-14+7.73150163599411e-14j)male
data [8] :(-9.83708202860514e-13+4.327471707862776e-14j)male
data [9] :(5.953949584975712e-13+4.219789511681815e-14j)male
data [10] :(2.4574158989855744e-13+8.845963131523874e-14j)male
data [11] :(1.0043430442405941e-12-6.26654926484509e-14j)male
data [12] :(-9.701064455278115e-14+1.3782851626963058e-13j)male
data [13] :(-2.091355679926278e-13+1.1297549225225335e-14j)male
data [14] :(-6.781563217611725e-13-1.402567530155120 4e-14j)male
data [15] :(3.8509063554266943e-13-3.406583381339948e-13j)male
data [16] :(2.1703492599736526e-12-9.084916352986239e-14j)male
data [17] :(-1.27045499098543e-12-4.859208912724119e-14j)male
data [18] :(1.0000000000000072-2.4281140474640406e-13j)female
data [19] :(1.913176125993998e-12+1.2296229818901609e-13j)male
data [20] :(1.913176125993998e-12+1.2296229818901609e-13j)male
```

In [ ]:
```
```