## EVEN NUMBERED SYSTEM

jupyter LABTEST1 Last Checkpoint: 30 minutes ago (unsaved changes)

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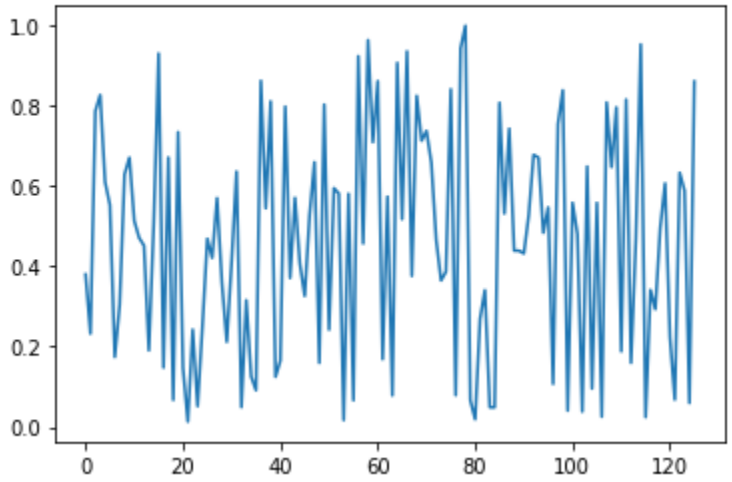
Run Code

In [97]:
```
import numpy as np
import scipy
import matplotlib.pyplot as plt
trading_volume=np.random.random(126)
#print("Trading Volume[]=",trading_volume, '\n')

def lowpassfilter(trading_volume):
    smoothed_data.append(0)
    i=2
    for data in trading_volume:
        data=((data)+(data+1))/i
        smoothed_data.append(data)
        i=i+1

lowpassfilter(trading_volume)
#print("Smoothed Data[]=",smoothed_data,'\n')

def weekly_total(smoothed_data):
    weeklytotal=[]
    j=0
    for i in range(0,118,7):
        interim_total=np.array([smoothed_data[j], smoothed_data[j+1], smoothed_data[j+2], smoothed_data[j+3],
                                smoothed_data[j+4], smoothed_data[j+5], smoothed_data[j+6]])
        total=np.sum(interim_total)
        weeklytotal.append(total)
    return weeklytotal

weektotal=weekly_total(smoothed_data)
#print("Weekly Total[]=",weektotal)

def detectt(smoothed_data,weektotal):
    for i in range(0,118,3):
        if((smoothed_data[i]+smoothed_data[i+1]+smoothed_data[i+2])>(1.5*np.mean(weektotal))):
            periods.append(i+1)
        return periods

plt.plot(trading volume)
```

Out[97]: [<matplotlib.lines.Line2D at 0x18b27f5ca20>]




```
plt.plot(trading_volume)
plt.plot(smoothed_data)
plt.plot(weektotal)
```

: [<matplotlib.lines.Line2D at 0x18b2802eda0>]