```
In [1]: import numpy as np
        import pandas as pd
        import matplotlib.pyplot as plt
```

```
In [2]: y = [1,2,4,6,8,10,12,14,16,18,20]
        data1 = [1,5,10,15,20,25,30,35,40,45,50]
        data2 = [1,10,20,30,40,50,60,70,80,85,90]
```
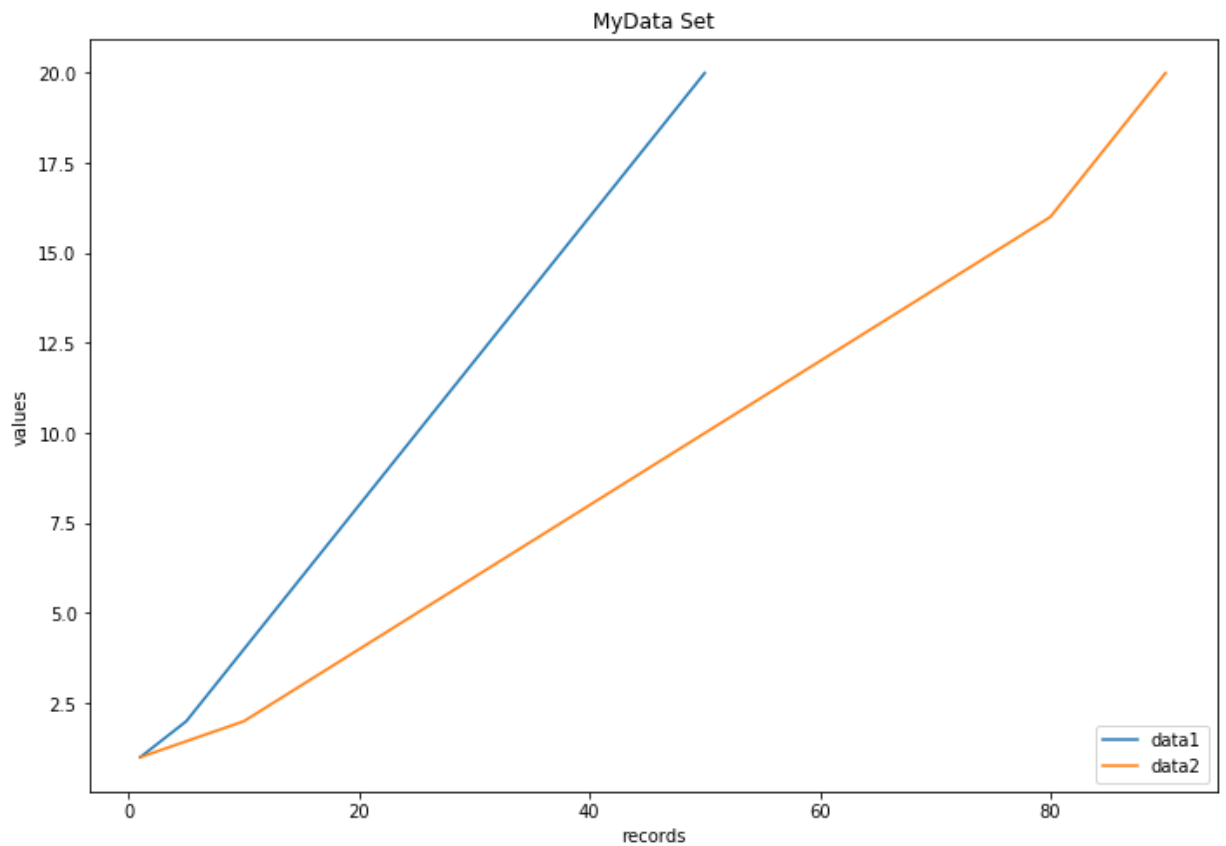
```
In [3]: fig = plt.figure()

        # add_axes([left,bottom,width,hight] => 0.0 - 1.0)
        res = fig.add_axes([0,0,2,2])
        f1 = plt.plot(data1,y)
        f2 = plt.plot(data2,y)
        res.set_title("MyData Set")
        res.legend(labels=("data1","data2"),loc="lower right")
        res.set_xlabel("records")
        res.set_ylabel("values")
        plt.show()
```
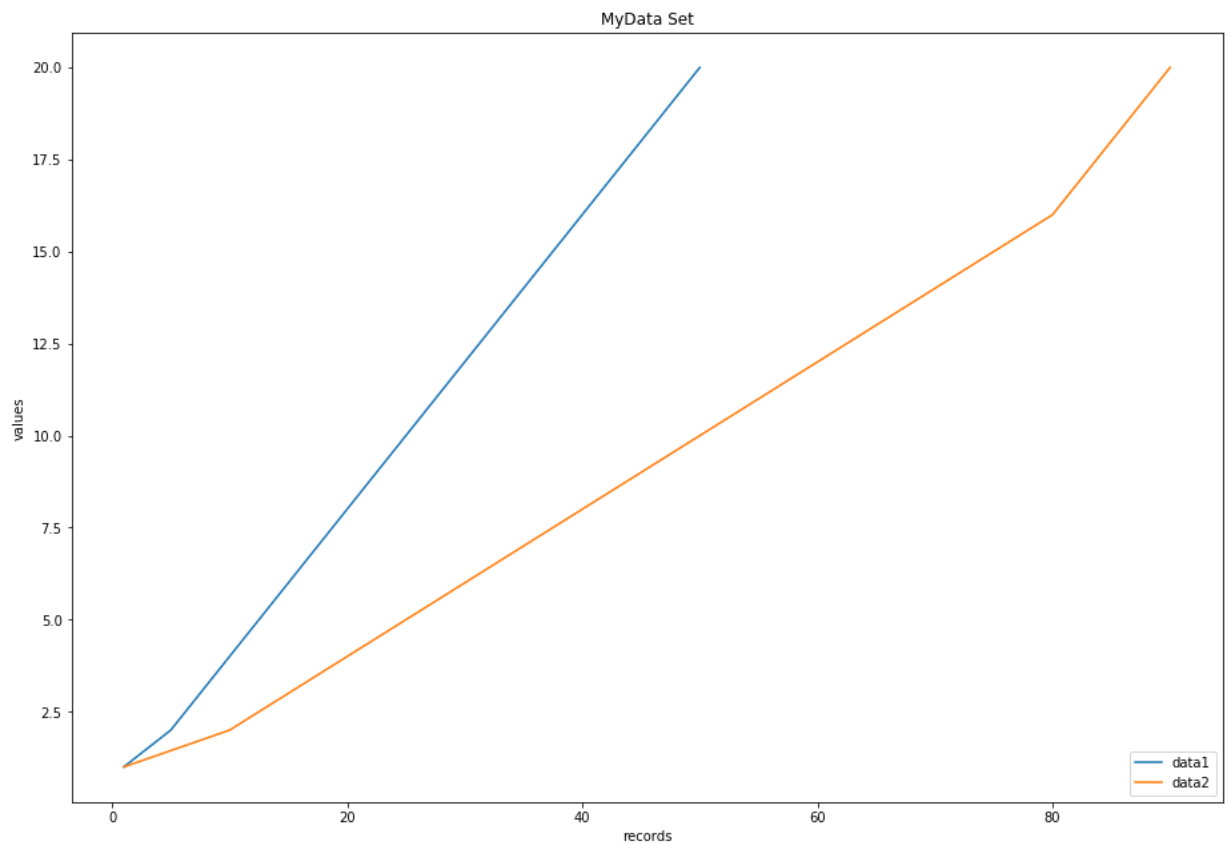
```
In [4]: fig = plt.figure()

        # add_axes([left,bottom,width,hight] => 0.0 - 1.0)
        res = fig.add_axes([0,0,1.5,1.5])
        f1 = plt.plot(data1,y)
        f2 = plt.plot(data2,y)
        res.set_title("MyData Set")
        res.legend(labels=("data1","data2"),loc="lower right")
        res.set_xlabel("records")
        res.set_ylabel("values")
        plt.show()
```
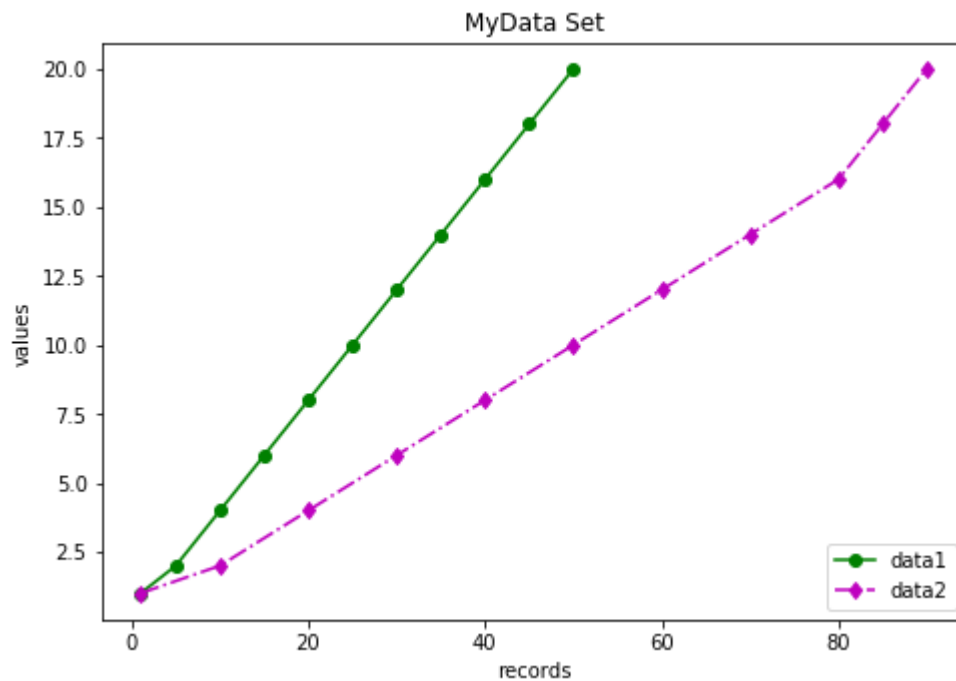


In [ ]:

```
In [5]: fig = plt.figure()

        # add_axes([left,bottom,width,hight] => 0.0 - 1.0)
        res = fig.add_axes([0,0,1,1])
        f1 = plt.plot(data1,y,'go-')
        f2 = plt.plot(data2,y,'md-.')
        res.set_title("MyData Set")
        res.legend(labels=("data1","data2"),loc="lower right")
        res.set_xlabel("records")
        res.set_ylabel("values")
        plt.show()
```
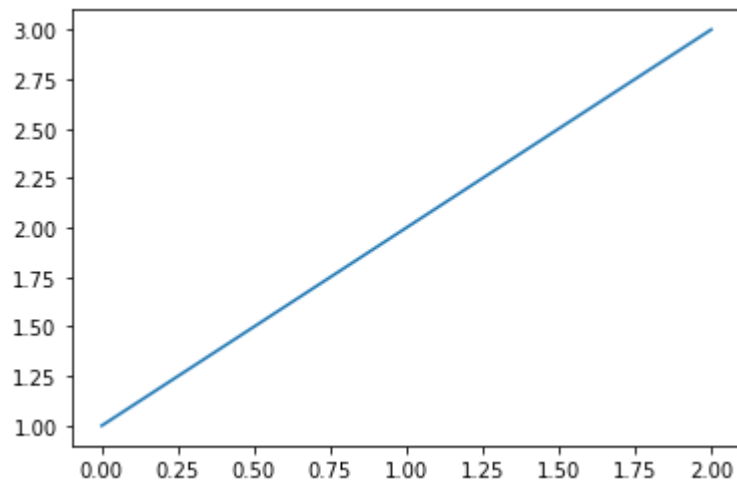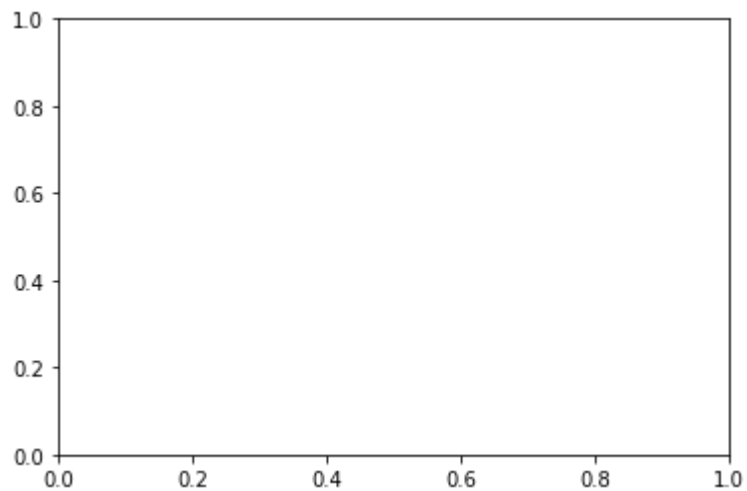


```
In [ ]:

In [ ]:

In [ ]: # Subplot
```

In [6]: `plt.plot([1,2,3])`
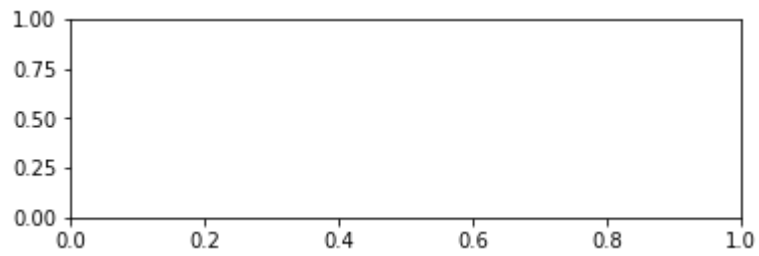
Out[6]: `[<matplotlib.lines.Line2D at 0x1b415c10668>]`

In [7]: `plt.subplot(111)`

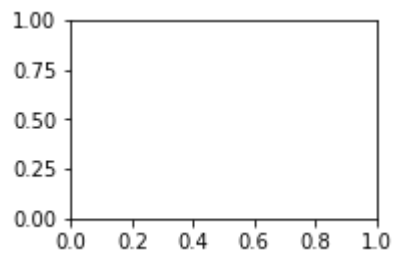Out[7]: `<matplotlib.axes._subplots.AxesSubplot at 0x1b415c62be0>`

In [8]: `plt.subplot(211)` *# => 2 rows one column*

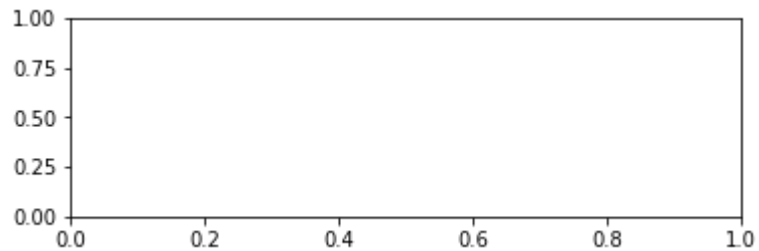Out[8]: `<matplotlib.axes._subplots.AxesSubplot at 0x1b415cb78d0>`

In [9]: `plt.subplot(221)` *# => 2 column one row*

Out[9]: `<matplotlib.axes._subplots.AxesSubplot at 0x1b41574aa20>`

In [11]: `plt.subplot(212)`

Out[11]: `<matplotlib.axes._subplots.AxesSubplot at 0x1b415ccb400>`
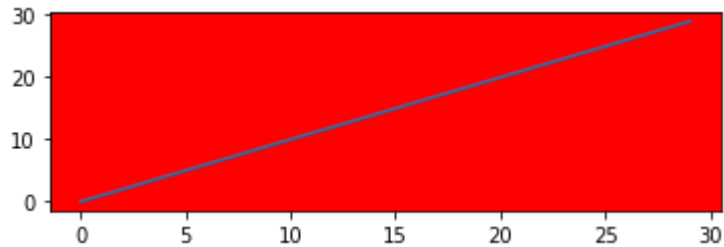

In [ ]:

In [ ]:

In [14]:
```python
# Eg

plt.plot([1,2,3])
plt.subplot(211, facecolor='r')
plt.plot(range(30))
```

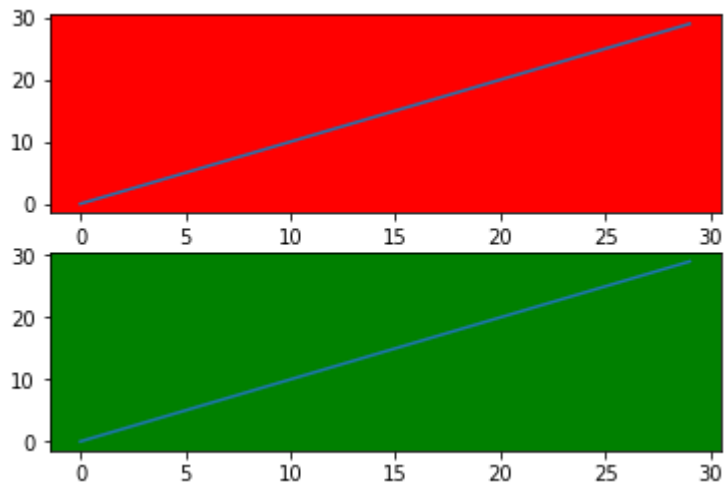Out[14]: [<matplotlib.lines.Line2D at 0x1b41582b1d0>]

In [17]:
```python
# 211   ==> 2 column 1 graph 1 = row
# 212   ==> 2 column 1 graph 2 = row
plt.plot([1,2,3])
plt.subplot(211, facecolor='r')
plt.plot(range(30))

plt.subplot(212, facecolor='g')
plt.plot(range(30))
```

Out[17]: [<matplotlib.lines.Line2D at 0x1b415a5bd68>]
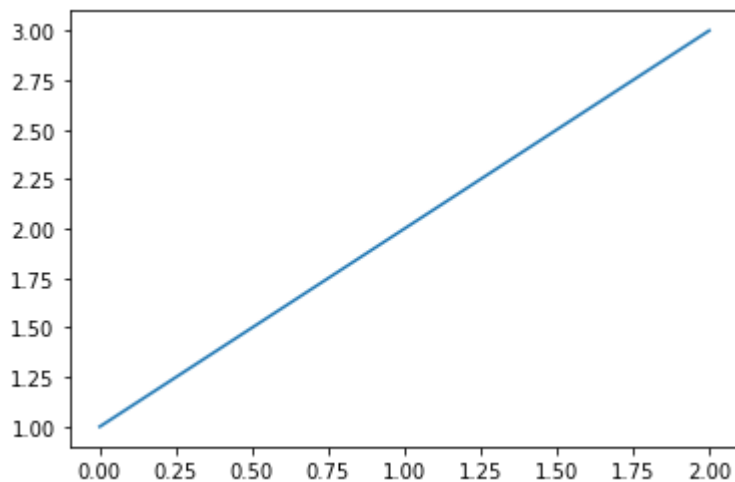

In [ ]:

In [ ]:

```
In [18]:  # eg

          import matplotlib.pyplot as plt
          res = plt.figure()
          data1 = res.add_subplot(111)
          data1.plot([1,2,3])
```
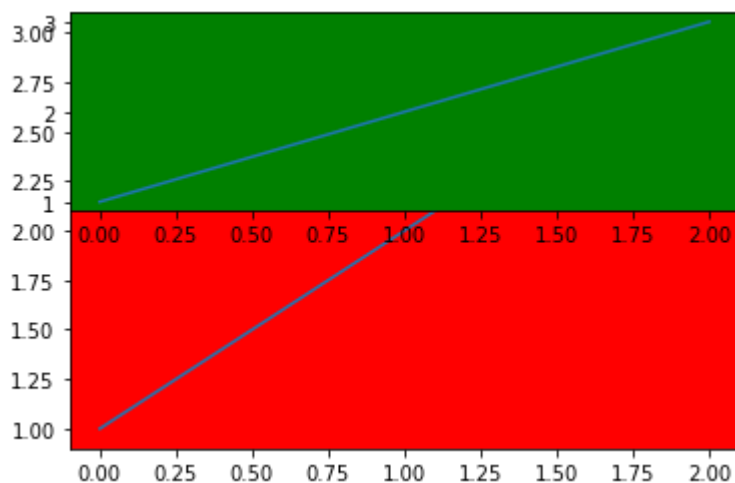
Out[18]: [<matplotlib.lines.Line2D at 0x1b4158babe0>]


```
In [19]:  import matplotlib.pyplot as plt
          res = plt.figure()
          data1 = res.add_subplot(111,facecolor='r')
          data1.plot([1,2,3])

          data1 = res.add_subplot(211,facecolor='g')
          data1.plot([1,2,3])
```

Out[19]: [<matplotlib.lines.Line2D at 0x1b415b3e9e8>]

```
In [20]: import matplotlib.pyplot as plt
         res = plt.figure()
         data1 = res.add_subplot(111,facecolor='r')
         data1.plot([1,2,3])

         data1 = res.add_subplot(221,facecolor='g')
         data1.plot([1,2,3])
```

Out[20]: [<matplotlib.lines.Line2D at 0x1b416d77898>]