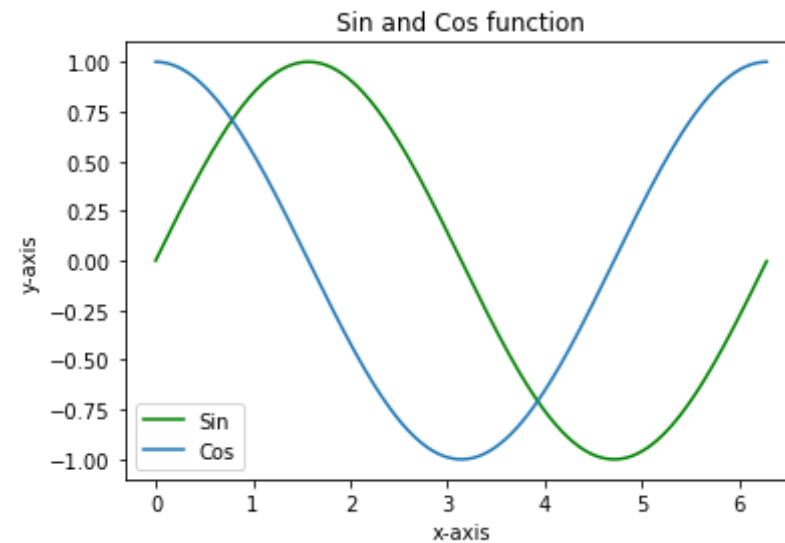


```
In [10]: #import numpy as np
import matplotlib.pyplot as plt
import numpy as np
```

```
In [12]: x = np.arange(0,np.pi*2,0.01)
y1 = np.sin(x)
y2 = np.cos(x)
plt.plot(x,y1,label='Sin',color='g')
plt.plot(x,y2,label='Cos')
plt.xlabel('x-axis')
plt.ylabel('y-axis')
plt.legend() #for below sin cos label, position we can't fix.
plt.title('Sin and Cos function')
plt.show()
```



```
In [20]: import pandas as pd
```

```
In [21]: flavor = ['choco', 'mango', 'orange', 'pineapple']
```

```
In [22]: s = pd.Series(flavor)
s
```

```
Out[22]: 0      choco
1      mango
2      orange
3  pineapple
dtype: object
```

```
In [25]: s.values
```

```
Out[25]: array(['choco', 'mango', 'orange', 'pineapple'], dtype=object)
```

```
In [27]: s.index #starting 0 to 4
```

```
Out[27]: RangeIndex(start=0, stop=4, step=1)
```

```
In [29]: s.dtype # o means object, means 'string' type data
```

```
Out[29]: dtype('O')
```

```
In [33]: fruit=['apple','banana','mango']
weekday=['mon','tue','thur']
```

```
In [34]: pd.Series(fruit,weekday)
```

```
Out[34]: mon      apple
tue      banana
thur      mango
dtype: object
```

```
In [36]: pd.Series(weekday,fruit)
```

```
Out[36]: apple      mon
banana      tue
mango      thur
dtype: object
```

```
In [38]: pd.Series(data=fruit,index=weekday)
```

```
Out[38]: mon    apple  
         tue    banana  
         thur    mango  
         dtype: object
```

```
In [40]: pd.Series(fruit,index=weekday)
```

```
Out[40]: mon    apple  
         tue    banana  
         thur    mango  
         dtype: object
```

```
In [43]: import pandas as pd
```

```
In [45]: data.head()
```

```
-----  
-----  
NameError                                Traceback (most recent call l  
ast)  
<ipython-input-45-304fa4ce4ebd> in <module>  
----> 1 data.head()  
  
NameError: name 'data' is not defined
```