

Import some important libraries

```
In [11]: import numpy as np
from numpy.random import randn

import pandas as pd
from pandas import Series, DataFrame

import seaborn as sb

import matplotlib.pyplot as plt
from matplotlib import rcParams
```

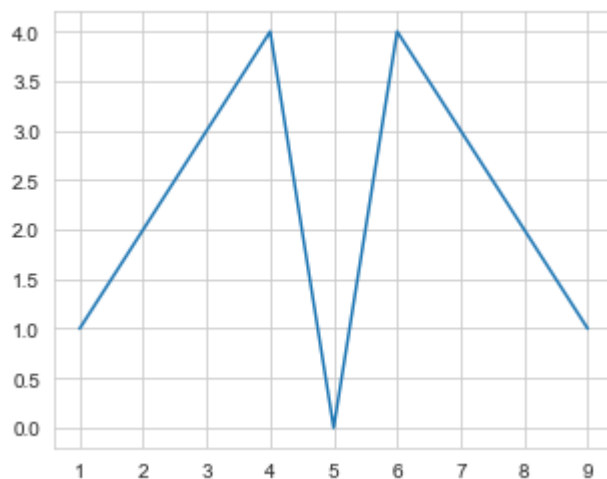
Configuring the plot using %matplotlib inline, rcParams['figure.figsize'] and sb.set_style()

```
In [28]: %matplotlib inline
rcParams['figure.figsize'] = 5, 4
sb.set_style('whitegrid')
```

Try using simple dataset for showing the chart

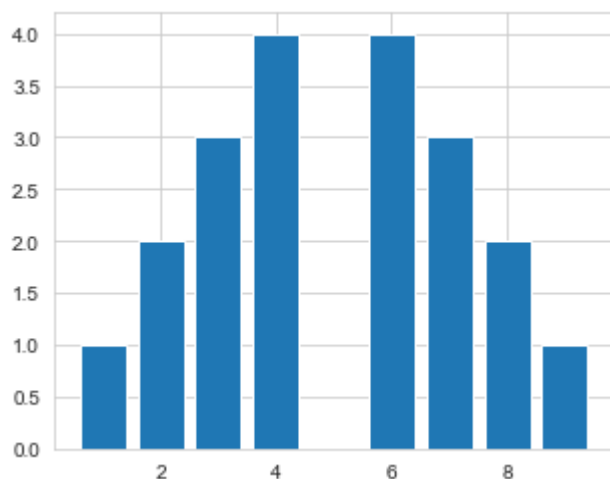
```
In [29]: x = range(1, 10)
y = [1, 2, 3, 4, 0, 4, 3, 2, 1]
plt.plot(x,y)
```

```
Out[29]: [<matplotlib.lines.Line2D at 0x1de3530>]
```



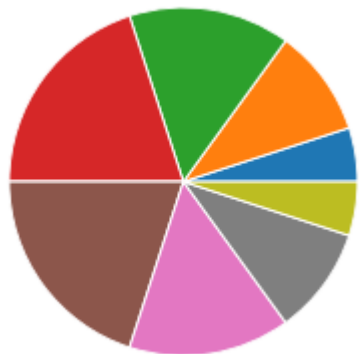
```
In [30]: plt.bar(x,y)
```

```
Out[30]: <BarContainer object of 9 artists>
```



```
In [33]: plt.pie(y)
```

```
Out[33]: ([<matplotlib.patches.Wedge at 0x3eafc70>,
<matplotlib.patches.Wedge at 0x3eafe30>,
<matplotlib.patches.Wedge at 0x3eba0f0>,
<matplotlib.patches.Wedge at 0x3eba390>,
<matplotlib.patches.Wedge at 0x3eba770>,
<matplotlib.patches.Wedge at 0x3ebaa90>,
<matplotlib.patches.Wedge at 0x3ebac10>,
<matplotlib.patches.Wedge at 0x3ebaeb0>,
<matplotlib.patches.Wedge at 0x3eba630>],
[Text(1.0864571742518743, 0.1720779140872905, ''),
Text(0.8899186877588753, 0.6465637858537406, ''),
Text(0.1720778759417422, 1.086457180293535, ''),
Text(-0.8899187331606259, 0.6465637233635886, ''),
Text(-1.0999999999999974, -7.724207464605884e-08, ''),
Text(-0.8899186423571203, -0.6465638483438895, ''),
Text(0.1720780285239344, -1.0864571561268839, ''),
Text(0.8899187785623721, -0.6465636608734332, ''),
Text(1.086457198418509, -0.17207776150509588, '')])
```



Using dataset from file csv in local computer to showing the chart

```
In [34]: address = 'C:/Users/muham/mtcars.csv'
cars = pd.read_csv(address)
```

In [35]: cars

Out[35]:

	Unnamed: 0	mpg	cyl	displacement	hp	drat	wt	qsec	vs	am	gear	carb
0	Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1	4	4
1	Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1	4	4
2	Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1	1	4	1
3	Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1	0	3	1
4	Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0	0	3	2
5	Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1	0	3	1
6	Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0	0	3	4
7	Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1	0	4	2
8	Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1	0	4	2
9	Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4
10	Merc 280C	17.8	6	167.6	123	3.92	3.440	18.90	1	0	4	4
11	Merc 450SE	16.4	8	275.8	180	3.07	4.070	17.40	0	0	3	3
12	Merc 450SL	17.3	8	275.8	180	3.07	3.730	17.60	0	0	3	3
13	Merc 450SLC	15.2	8	275.8	180	3.07	3.780	18.00	0	0	3	3
14	Cadillac Fleetwood	10.4	8	472.0	205	2.93	5.250	17.98	0	0	3	4
15	Lincoln Continental	10.4	8	460.0	215	3.00	5.424	17.82	0	0	3	4
16	Chrysler Imperial	14.7	8	440.0	230	3.23	5.345	17.42	0	0	3	4
17	Fiat 128	32.4	4	78.7	66	4.08	2.200	19.47	1	1	4	1
18	Honda Civic	30.4	4	75.7	52	4.93	1.615	18.52	1	1	4	2
19	Toyota Corolla	33.9	4	71.1	65	4.22	1.835	19.90	1	1	4	1
20	Toyota Corona	21.5	4	120.1	97	3.70	2.465	20.01	1	0	3	1
21	Dodge Challenger	15.5	8	318.0	150	2.76	3.520	16.87	0	0	3	2
22	AMC Javelin	15.2	8	304.0	150	3.15	3.435	17.30	0	0	3	2
23	Camaro Z28	13.3	8	350.0	245	3.73	3.840	15.41	0	0	3	4
24	Pontiac Firebird	19.2	8	400.0	175	3.08	3.845	17.05	0	0	3	2
25	Fiat X1-9	27.3	4	79.0	66	4.08	1.935	18.90	1	1	4	1
26	Porsche 914-2	26.0	4	120.3	91	4.43	2.140	16.70	0	1	5	2
27	Lotus Europa	30.4	4	95.1	113	3.77	1.513	16.90	1	1	5	2
28	Ford Pantera L	15.8	8	351.0	264	4.22	3.170	14.50	0	1	5	4
29	Ferrari Dino	19.7	6	145.0	175	3.62	2.770	15.50	0	1	5	6
30	Maserati Bora	15.0	8	301.0	335	3.54	3.570	14.60	0	1	5	8
31	Volvo 142E	21.4	4	121.0	109	4.11	2.780	18.60	1	1	4	2

```
In [40]: cars.column = ['car_names', 'mpg', 'cyl', 'disp', 'hp', 'drat', 'wt', 'qsec', 'vs', 'am', 'gear', 'carb']
```

```
Out[40]:
```

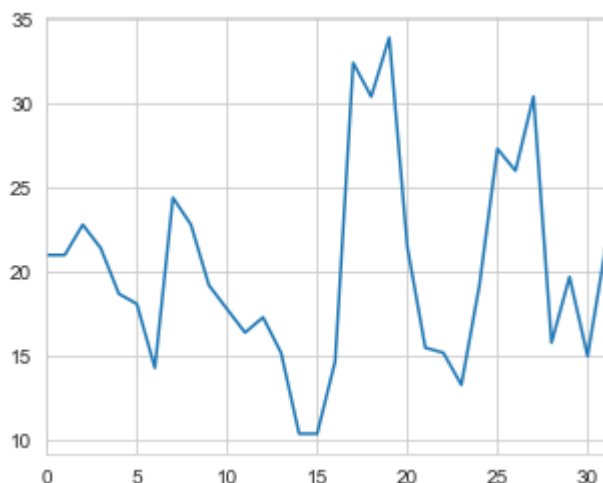
	Unnamed: 0	mpg	cyl	disp	hp	drat	wt	qsec	vs	am	gear	carb
0	Mazda RX4	21.0	6	160.0	110	3.90	2.620	16.46	0	1	4	4
1	Mazda RX4 Wag	21.0	6	160.0	110	3.90	2.875	17.02	0	1	4	4
2	Datsun 710	22.8	4	108.0	93	3.85	2.320	18.61	1	1	4	1
3	Hornet 4 Drive	21.4	6	258.0	110	3.08	3.215	19.44	1	0	3	1
4	Hornet Sportabout	18.7	8	360.0	175	3.15	3.440	17.02	0	0	3	2
5	Valiant	18.1	6	225.0	105	2.76	3.460	20.22	1	0	3	1
6	Duster 360	14.3	8	360.0	245	3.21	3.570	15.84	0	0	3	4
7	Merc 240D	24.4	4	146.7	62	3.69	3.190	20.00	1	0	4	2
8	Merc 230	22.8	4	140.8	95	3.92	3.150	22.90	1	0	4	2
9	Merc 280	19.2	6	167.6	123	3.92	3.440	18.30	1	0	4	4
10	Merc 280C	17.8	6	167.6	123	3.92	3.440	18.90	1	0	4	4
11	Merc 450SE	16.4	8	275.8	180	3.07	4.070	17.40	0	0	3	3
12	Merc 450SL	17.3	8	275.8	180	3.07	3.730	17.60	0	0	3	3
13	Merc 450SLC	15.2	8	275.8	180	3.07	3.780	18.00	0	0	3	3
14	Cadillac Fleetwood	10.4	8	472.0	205	2.93	5.250	17.98	0	0	3	4
15	Lincoln Continental	10.4	8	460.0	215	3.00	5.424	17.82	0	0	3	4
16	Chrysler Imperial	14.7	8	440.0	230	3.23	5.345	17.42	0	0	3	4
17	Fiat 128	32.4	4	78.7	66	4.08	2.200	19.47	1	1	4	1
18	Honda Civic	30.4	4	75.7	52	4.93	1.615	18.52	1	1	4	2
19	Toyota Corolla	33.9	4	71.1	65	4.22	1.835	19.90	1	1	4	1
20	Toyota Corona	21.5	4	120.1	97	3.70	2.465	20.01	1	0	3	1
21	Dodge Challenger	15.5	8	318.0	150	2.76	3.520	16.87	0	0	3	2
22	AMC Javelin	15.2	8	304.0	150	3.15	3.435	17.30	0	0	3	2
23	Camaro Z28	13.3	8	350.0	245	3.73	3.840	15.41	0	0	3	4
24	Pontiac Firebird	19.2	8	400.0	175	3.08	3.845	17.05	0	0	3	2
25	Fiat X1-9	27.3	4	79.0	66	4.08	1.935	18.90	1	1	4	1
26	Porsche 914-2	26.0	4	120.3	91	4.43	2.140	16.70	0	1	5	2
27	Lotus Europa	30.4	4	95.1	113	3.77	1.513	16.90	1	1	5	2
28	Ford Pantera L	15.8	8	351.0	264	4.22	3.170	14.50	0	1	5	4
29	Ferrari Dino	19.7	6	145.0	175	3.62	2.770	15.50	0	1	5	6
30	Maserati Bora	15.0	8	301.0	335	3.54	3.570	14.60	0	1	5	8
31	Volvo 142E	21.4	4	121.0	109	4.11	2.780	18.60	1	1	4	2

Try using plot line, bar and pie with pandas object

For LINE CHART, we use the `.plot()` function

```
In [48]: mpg = cars['mpg']
mpg.plot()
```

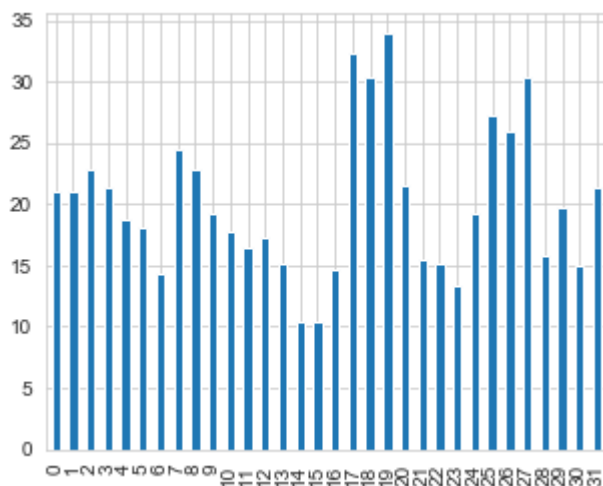
```
Out[48]: <matplotlib.axes._subplots.AxesSubplot at 0x609f030>
```



For BAR CHART, we use the `.plot(kind = 'bar')` function

```
In [49]: mpg.plot(kind = 'bar')
```

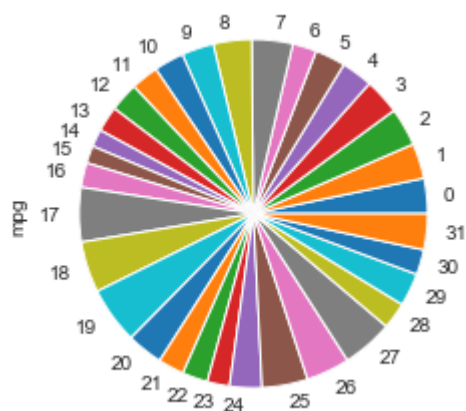
```
Out[49]: <matplotlib.axes._subplots.AxesSubplot at 0x60e5fd0>
```



For PIE CHART, we use the `.plot(kind = 'pie')` function

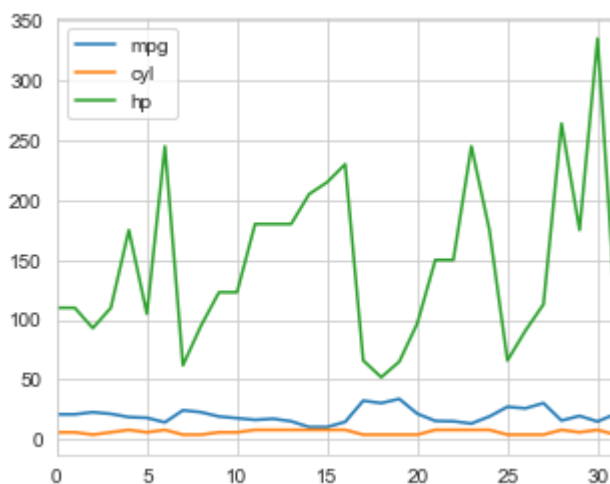
```
In [50]: mpg.plot(kind = 'pie')
```

```
Out[50]: <matplotlib.axes._subplots.AxesSubplot at 0x616e070>
```



```
In [53]: tigadata = cars[['mpg', 'cyl', 'hp']]
tigadata.plot()
```

```
Out[53]: <matplotlib.axes._subplots.AxesSubplot at 0xb4e38b0>
```



```
In [54]: tigadata.plot(kind = 'bar')
```

```
Out[54]: <matplotlib.axes._subplots.AxesSubplot at 0xb605b90>
```

