Chapter 4 - Practical Data Visualization

Segment 3 - Plot formatting

```python
import numpy as np
import pandas as pd
from pandas import Series, DataFrame

import matplotlib.pyplot as plt
from pylab import rcParams
'''import numpy as np
import pandas as pd
from pandas import DataFrame, Series

import matplotlib.pyplotas plt
from matplotlib import rcParams'''
```

    'import numpy as np\nimport pandas as pd\nfrom pandas import DataFrame, Series\n\nimport matplotlib.pyplotas plt\nfrom matplotlib import rcParams'

+ Code   + Text

```python
%matplotlib inline
rcParams['figure.figsize'] = 5, 4
'''%matplotlib inline
rcParams['figure.figsize'] =5,4'''
```
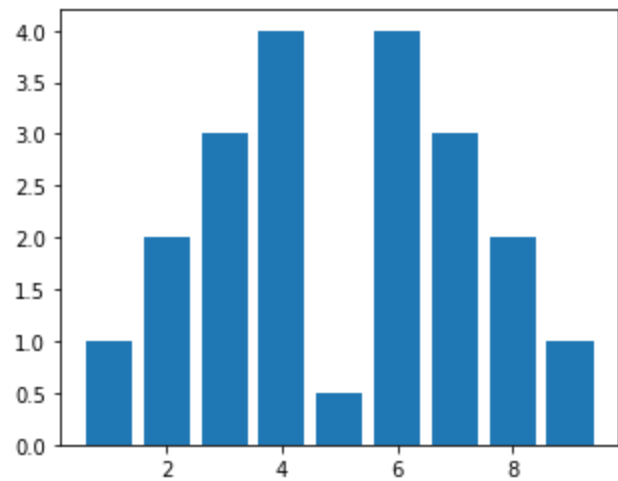
    '%matplotlib inline\nrcParams['figure.figsize'] =5,4'

▾ Defining plot color

```python
x = range(1,10)
y = [1,2,3,4,0.5,4,3,2,1]

plt.bar(x,y)
'''x=range(1,10)
y=[1]
plt.bar(x,y)'''
```
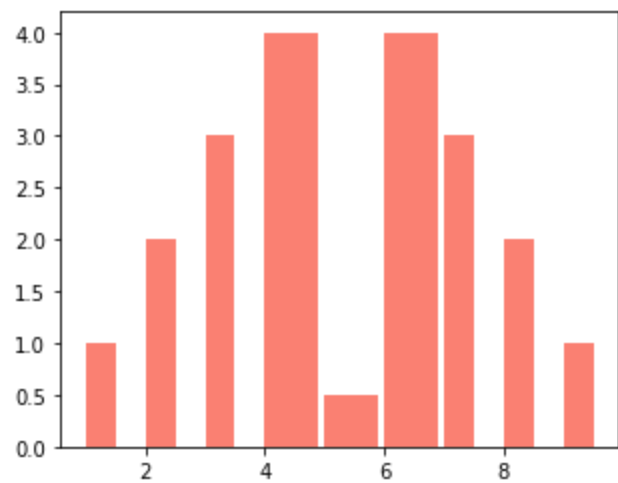
'x=range(1,10)\ny=[1]\nplt.bar(x,y)'


```
wide = [.5,.5,.5,.9,.9,.9,.5,.5,.5]
color = ['salmon']
#plt.bar(x, y, width=wide, color=color, align='center')
plt.bar(x,y, width=[.5,.5,.5,.9,.9,.9,.5,.5,.5], color='salmon', align='edge')
```
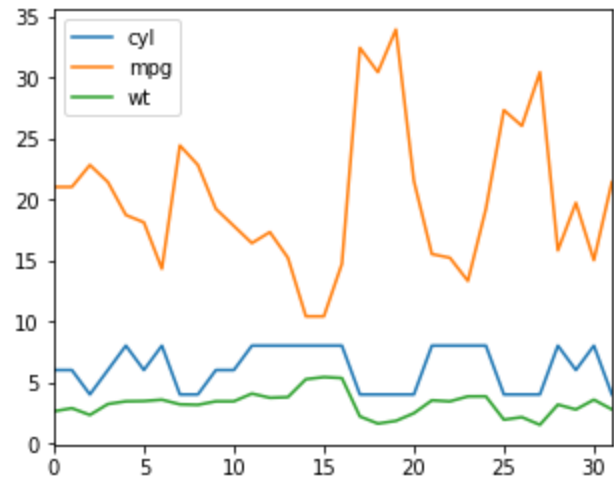
<BarContainer object of 9 artists>


```
address = 'C:/Users/Lillian/Desktop/ExerciseFiles/Data/mtcars.csv'

cars = pd.read_csv(address)
cars.columns = ['car_names','mpg','cyl','disp', 'hp', 'drat', 'wt', 'qsec', 'vs', 'am', 'gear', 'carb']
```
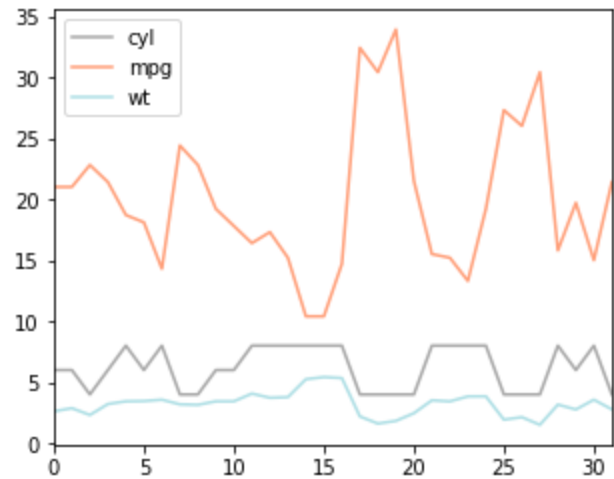
```
df = cars[['cyl', 'mpg', 'wt']]
df.plot()
```

<matplotlib.axes._subplots.AxesSubplot at 0x153322453c8>
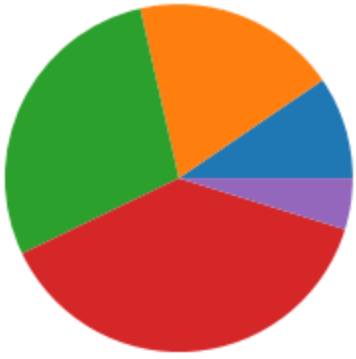


```
color_theme = ['darkgray', 'lightsalmon', 'powderblue']
df.plot(color=color_theme)
```
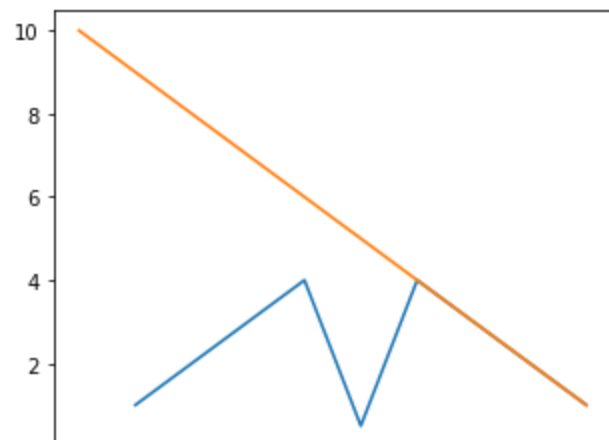
<matplotlib.axes._subplots.AxesSubplot at 0x153322c4518>


```
z = [1,2,3,4,.5]
plt.pie(z)
plt.show()
```

```
color_theme = ['#A9A9A9', '#FFA07A', '#B0E0E6', '#FFE4C4', '#BDB76B']
plt.pie(z, colors=color_theme)
plt.show()
```
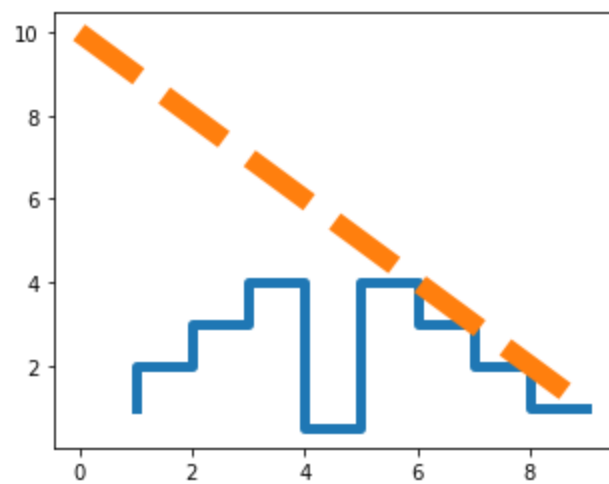

Customizing line styles

```
x1 = range(0,10)
y1 = [10,9,8,7,6,5,4,3,2,1]

plt.plot(x, y)
plt.plot(x1, y1)
```

```
plt.plot(x, y, ds='steps', lw=5)
plt.plot(x1, y1, ls='--', lw=10)
```
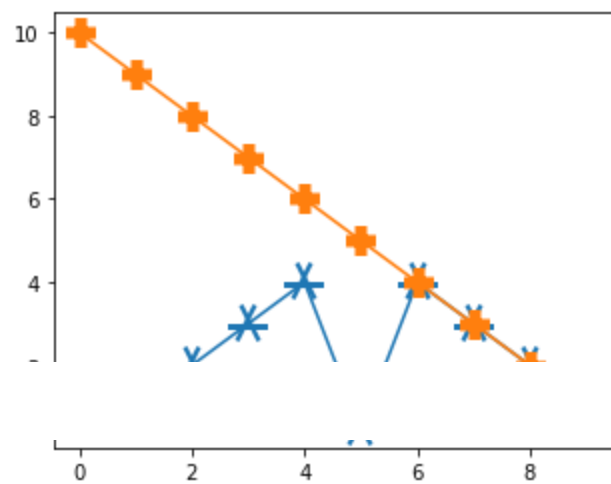
▾ Setting plot markers

```
plt.plot(x, y, marker='1', mew=20)
plt.plot(x1, y1, marker='+', mew=15)
```

[<matplotlib.lines.Line2D at 0x7fccc7d79750>]