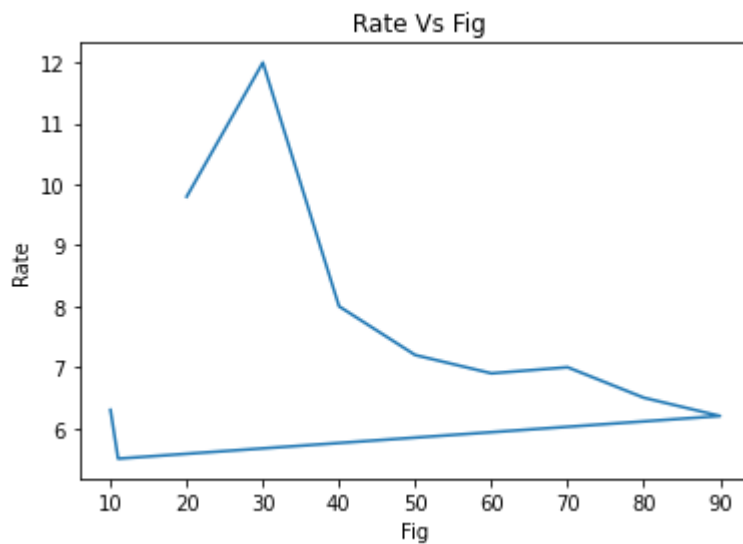Matplotlib Importing matplotlib

```
import matplotlib.pyplot as plt
#import matplotlib in python
```

Simple line chart

```
fig = [20,30,40,50,60,70,80,90,11,10]
Rate = [9.8,12,8,7.2,6.9,7,6.5,6.2,5.5,6.3]

plt.plot(fig, Rate)
plt.title(' Rate Vs Fig')
plt.xlabel('Fig')
plt.ylabel('Rate')
plt.show()
```


Correlation chart

```
import pandas as pd
y = pd.Series([1, 2, 3, 4, 3, 5, 4])
x = pd.Series([1, 2, 3, 4, 5, 6, 7])
correlation = y.corr(x)

# adds the title
plt.title('Correlation')

# plot the data
```
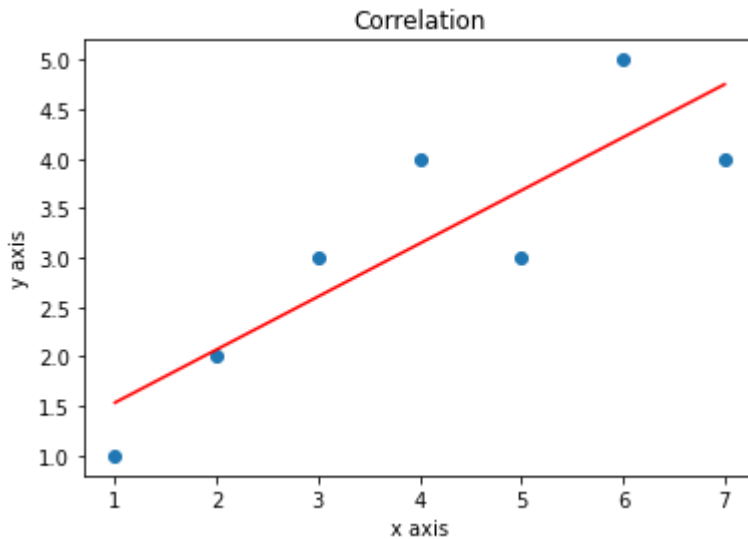
```
plt.scatter(x, y)

# fits the best fitting line to the data
plt.plot(np.unique(x),
         np.poly1d(np.polyfit(x, y, 1))
         (np.unique(x)), color='red')

# Labelling axes
plt.xlabel('x axis')
plt.ylabel('y axis')
```

```
Text(0, 0.5, 'y axis')
```
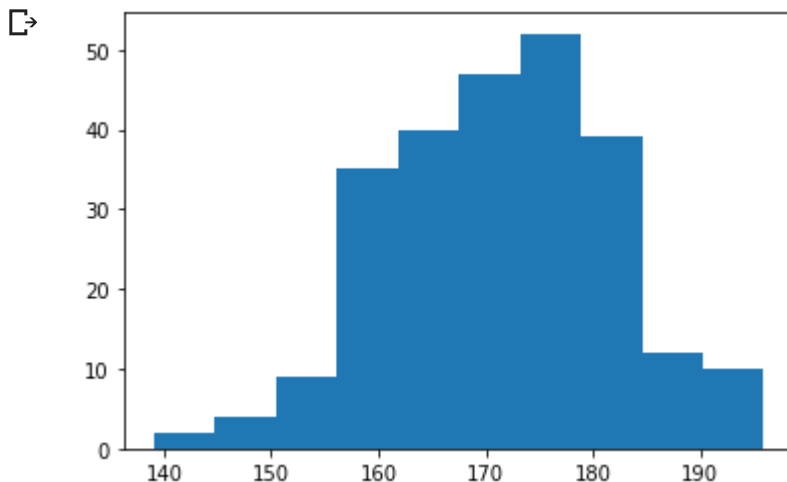

histogram

```
import numpy as np

x = np.random.normal(170, 10, 250)

plt.hist(x)
plt.show()
```
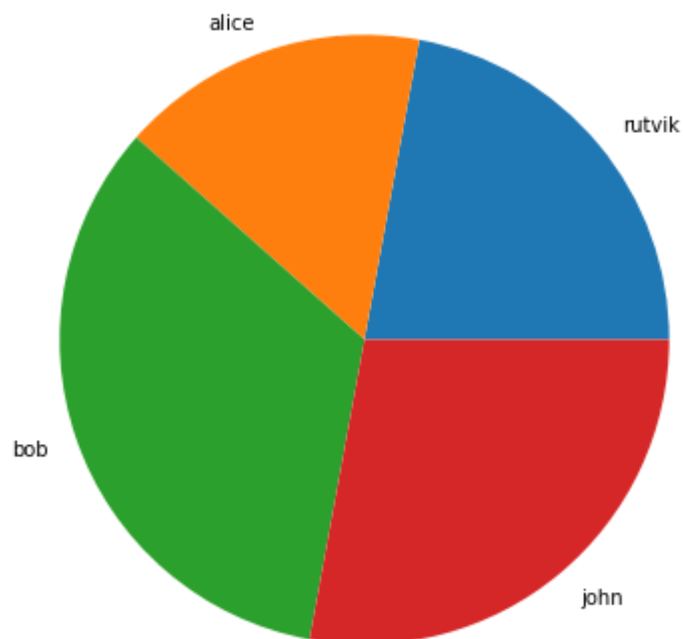
Plotting of Multivariate data

plotting pi chart

```
# Creating dataset
names = ['rutvik', 'alice', 'bob',
         'john']

data = [23, 17, 35, 29]

# Creating plot
fig = plt.figure(figsize =(10, 7))
plt.pie(data, labels = names)

# show plot
plt.show()
```

✓ 0s completed at 3:27 PM