Statictics

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

File directory

In [17]:
```
data=pd.read_csv(r"C:\Users\user\Desktop\Vicky\4_drug200.csv")
```

All Mathematical function

In [18]:
```
data.describe()
```

Out[18]:

	Age	Na_to_K
count	200.000000	200.000000
mean	44.315000	16.084485
std	16.544315	7.223956
min	15.000000	6.269000
25%	31.000000	10.445500
50%	45.000000	13.936500
75%	58.000000	19.380000
max	74.000000	38.247000

To display the top portion of the dataset

In [19]:
```
data.head()
```

Out[19]:

	Age	Sex	BP	Cholesterol	Na_to_K	Drug
0	23	F	HIGH	HIGH	25.355	drugY
1	47	M	LOW	HIGH	13.093	drugC
2	47	M	LOW	HIGH	10.114	drugC
3	28	F	NORMAL	HIGH	7.798	drugX
4	61	F	LOW	HIGH	18.043	drugY

To display the mean median mode of the dataset for only numerical value

In [21]:
```
data1=data[["Age","Na_to_K"]]
print(data1.mean())
print(data1.mode())
print(data.median())
print()
```

```
Age        44.315000
Na_to_K    16.084485
dtype: float64
    Age  Na_to_K
0  47.0   12.006
1   NaN   18.295
Age        45.0000
Na_to_K    13.9365
dtype: float64
```

To display the total of each columns

In [22]:
```
print(data1.sum())
```

```
Age        8863.000
Na_to_K    3216.897
dtype: float64
```

To displayn the minimum value

In [23]:
```
print(data.min())
```

```
Age              15
Sex               F
BP             HIGH
Cholesterol    HIGH
Na_to_K       6.269
Drug          drugA
dtype: object
```

To displayn theCummulative sum

In [24]:
```
print(data1.cumsum())
```

```
      Age   Na_to_K
0      23    25.355
1      70    38.448
2     117    48.562
3     145    56.360
4     206    74.403
..    ...       ...
195  8732  3169.628
196  8748  3181.634
197  8800  3191.528
198  8823  3205.548
199  8863  3216.897

[200 rows x 2 columns]
```

To count the total number of values in columns

In [25]:
```
print(data.count())
```

```
Age            200
Sex            200
BP             200
Cholesterol    200
Na_to_K        200
Drug           200
dtype: int64
```

In [26]:
```
print(data1.cov())
```

```
                Age    Na_to_K
Age      273.714347  -7.543752
Na_to_K   -7.543752  52.185533
```

In [27]:
```
from scipy.stats import spearmanr
from scipy.stats import pearsonr
```

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