importing libraries

In [1]:
```
import numpy as np
import pandas as pd
```

importing libraries

In [2]:
```
data=pd.read_csv(r"C:\Users\user\Downloads\4_drug200 - 4_drug200.csv")
data
```

Out[2]:

	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
...	...	...	...	...	...	...
195	56	F	LOW	HIGH	11.567	drugC
196	16	M	LOW	HIGH	12.006	drugC
197	52	M	NORMAL	HIGH	9.894	drugX
198	23	M	NORMAL	NORMAL	14.020	drugX
199	40	F	LOW	NORMAL	11.349	drugX

200 rows × 6 columns

importing numeric values from data set

In [4]:
```
df=data[["Age","Na_to_K"]]
df
```

Out[4]:

	Age	Na_to_K
0	23	25.355
1	47	13.093
2	47	10.114
3	28	7.798
4	61	18.043
...	...	...
195	56	11.567
196	16	12.006
197	52	9.894
198	23	14.020
199	40	11.349

200 rows × 2 columns

a. Find mean,median,mode and describe

In [5]:
```
print(df.mean())
```

```
Age        44.315000
Na_to_K    16.084485
dtype: float64
```

In [6]:
```
print(df.mode())
```

```
    Age  Na_to_K
0  47.0   12.006
1   NaN   18.295
```

In [7]:
```
print(df.median())
```

```
Age        45.0000
Na_to_K    13.9365
dtype: float64
```

In [8]:
```
print(df.describe())
```

```
              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
```

b.) Find sum,cumsum,count,min and max values

In [9]:
```
print(df.sum())
```

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

In [10]:
```
print(df.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]
```

In [11]:
```
print(df.count())
```

```
Age        200
Na_to_K    200
dtype: int64
```

In [12]:
```
print(df.min())
```

```
Age        15.000
Na_to_K     6.269
dtype: float64
```

In [13]:
```
print(df.max())
```

```
Age        74.000
Na_to_K    38.247
dtype: float64
```

c.) Find covarience and correlation

In [14]:
```
df.cov()
```

Out[14]:

	Age	Na_to_K
Age	273.714347	-7.543752
Na_to_K	-7.543752	52.185533

In [16]:
```
df.corr()
```

Out[16]:

	Age	Na_to_K
Age	1.000000	-0.063119
Na_to_K	-0.063119	1.000000

In [ ]:
```

```