DAY 6

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importing libraries

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

importing dataset

In [2]:
```python
data=pd.read_csv(r"C:\Users\user\Downloads\3_Fitness-1 - 3_Fitness-1.csv")
data
```

Out[2]:

	Row Labels	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	A	5.62%	7.73%	6.16%	75
1	B	4.21%	17.27%	19.21%	160
2	C	9.83%	11.60%	5.17%	101
3	D	2.81%	21.91%	7.88%	127
4	E	25.28%	10.57%	11.82%	179
5	F	8.15%	16.24%	18.47%	167
6	G	18.54%	8.76%	17.49%	171
7	H	25.56%	5.93%	13.79%	170
8	Grand Total	100.00%	100.00%	100.00%	1150

importing numeric values from data set

In [3]:
```python
df=data[["Sum of Jan","Sum of Feb","Sum of Mar","Sum of Total Sales"]]
df
```

Out[3]:

	Sum of Jan	Sum of Feb	Sum of Mar	Sum of Total Sales
0	5.62%	7.73%	6.16%	75
1	4.21%	17.27%	19.21%	160
2	9.83%	11.60%	5.17%	101
3	2.81%	21.91%	7.88%	127
4	25.28%	10.57%	11.82%	179
5	8.15%	16.24%	18.47%	167
6	18.54%	8.76%	17.49%	171
7	25.56%	5.93%	13.79%	170
8	100.00%	100.00%	100.00%	1150

a. Find mean,median,mode and describe

In [4]:
```python
print(df.mode())
```

```
   Sum of Jan Sum of Feb Sum of Mar  Sum of Total Sales
0     100.00%     10.57%    100.00%                  75
1      18.54%    100.00%     11.82%                 101
2       2.81%     11.60%     13.79%                 127
3      25.28%     16.24%     17.49%                 160
4      25.56%     17.27%     18.47%                 167
5       4.21%     21.91%     19.21%                 170
6       5.62%      5.93%      5.17%                 171
7       8.15%      7.73%      6.16%                 179
8       9.83%      8.76%      7.88%                1150
```

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

```
Sum of Total Sales    255.555556
dtype: float64
```

In [6]:
```python
print(df.median())
```

```
Sum of Total Sales    167.0
dtype: float64
```

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

```
        Sum of Total Sales
count             9.000000
mean            255.555556
std             337.332963
min              75.000000
25%             127.000000
50%             167.000000
75%             171.000000
max            1150.000000
```

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

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

```
Sum of Jan          5.62%4.21%9.83%2.81%25.28%8.15%18.54%25.56%100...
Sum of Feb          7.73%17.27%11.60%21.91%10.57%16.24%8.76%5.93%1...
Sum of Mar          6.16%19.21%5.17%7.88%11.82%18.47%17.49%13.79%1...
Sum of Total Sales                                              2300
dtype: object
```

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

```
                                                 Sum of Jan  \
0                                                     5.62%
1                                                5.62%4.21%
2                                           5.62%4.21%9.83%
3                                      5.62%4.21%9.83%2.81%
4                                 5.62%4.21%9.83%2.81%25.28%
5                            5.62%4.21%9.83%2.81%25.28%8.15%
6                       5.62%4.21%9.83%2.81%25.28%8.15%18.54%
7                  5.62%4.21%9.83%2.81%25.28%8.15%18.54%25.56%
8       5.62%4.21%9.83%2.81%25.28%8.15%18.54%25.56%100...

                                                 Sum of Feb  \
0                                                     7.73%
1                                                7.73%17.27%
2                                          7.73%17.27%11.60%
3                                     7.73%17.27%11.60%21.91%
4                                7.73%17.27%11.60%21.91%10.57%
5                           7.73%17.27%11.60%21.91%10.57%16.24%
6                      7.73%17.27%11.60%21.91%10.57%16.24%8.76%
7                 7.73%17.27%11.60%21.91%10.57%16.24%8.76%5.93%
8       7.73%17.27%11.60%21.91%10.57%16.24%8.76%5.93%1...

                                                 Sum of Mar   Sum of Total Sales
0                                                     6.16%                   75
1                                                6.16%19.21%                  235
2                                           6.16%19.21%5.17%                  336
3                                      6.16%19.21%5.17%7.88%                  463
4                                 6.16%19.21%5.17%7.88%11.82%                  642
5                            6.16%19.21%5.17%7.88%11.82%18.47%                 809
6                       6.16%19.21%5.17%7.88%11.82%18.47%17.49%                980
7                  6.16%19.21%5.17%7.88%11.82%18.47%17.49%13.79%              1150
8       6.16%19.21%5.17%7.88%11.82%18.47%17.49%13.79%1...                     2300
```

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

```
Sum of Jan           9
Sum of Feb           9
Sum of Mar           9
Sum of Total Sales   9
dtype: int64
```

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

```
Sum of Jan           100.00%
Sum of Feb            10.57%
Sum of Mar           100.00%
Sum of Total Sales       75
dtype: object
```

In [12]:
```python
print(df.max())
```

```
Sum of Jan              9.83%
Sum of Feb              8.76%
Sum of Mar              7.88%
Sum of Total Sales       1150
dtype: object
```

c.) Find covarience and correlation

In [13]:
```python
df.cov()
```

Out[13]:

	Sum of Total Sales
Sum of Total Sales	113793.527778

In [14]:
```python
df.corr()
```

Out[14]:

	Sum of Total Sales
Sum of Total Sales	1.0