Statictics

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

File directory

In [21]:
```
data=pd.read_csv(r"C:\Users\user\Desktop\Vicky\5_Instagram data.csv")
```

All Mathematical function

In [22]:
```
data.describe()
```

Out[22]:

	Impressions	From Home	From Hashtags	From Explore	From Other	Saves	Comn
count	119.000000	119.000000	119.000000	119.000000	119.000000	119.000000	119.0(
mean	5703.991597	2475.789916	1887.512605	1078.100840	171.092437	153.310924	6.6(
std	4843.780105	1489.386348	1884.361443	2613.026132	289.431031	156.317731	3.5(
min	1941.000000	1133.000000	116.000000	0.000000	9.000000	22.000000	0.0(
25%	3467.000000	1945.000000	726.000000	157.500000	38.000000	65.000000	4.0(
50%	4289.000000	2207.000000	1278.000000	326.000000	74.000000	109.000000	6.0(
75%	6138.000000	2602.500000	2363.500000	689.500000	196.000000	169.000000	8.0(
max	36919.000000	13473.000000	11817.000000	17414.000000	2547.000000	1095.000000	19.0(

To display the top portion of the dataset

In [23]:
```
data.head()
```

Out[23]:

	Impressions	From Home	From Hashtags	From Explore	From Other	Saves	Comments	Shares	Likes	Profile Visits	Fol
0	3920	2586	1028	619	56	98	9	5	162	35	
1	5394	2727	1838	1174	78	194	7	14	224	48	
2	4021	2085	1188	0	533	41	11	1	131	62	
3	4528	2700	621	932	73	172	10	7	213	23	
4	2518	1704	255	279	37	96	5	4	123	8	

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

In [24]:
```
data1=data[["Impressions","Saves"]]
print(data1.mean())
print(data1.mode())
print(data.median())
print()
```

```
Impressions    5703.991597
Saves           153.310924
dtype: float64
   Impressions  Saves
0       5394.0     40
1          NaN    135
2          NaN    144
Impressions       4289.0
From Home         2207.0
From Hashtags     1278.0
From Explore       326.0
From Other          74.0
Saves              109.0
Comments             6.0
Shares               6.0
Likes              151.0
Profile Visits      23.0
Follows              8.0
dtype: float64
```

To display the total of each columns

In [25]:
```
print(data1.sum())
```

```
Impressions    678775
Saves           18244
dtype: int64
```

To displayn the minimum value

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

```
Impressions    1941
Saves            22
dtype: int64
```

To displayn theCummulative sum

In [27]:
```
print(data1.cumsum())
```

```
     Impressions  Saves
0           3920     98
1           9314    292
2          13335    333
3          17863    505
4          20381    601
..           ...    ...
114       599291  16325
115       605022  16460
116       609161  16496
117       641856  17591
118       678775  18244

[119 rows x 2 columns]
```

To count the total number of values in columns

In [28]:
```
print(data.count())
```

```
Impressions       119
From Home         119
From Hashtags     119
From Explore      119
From Other        119
Saves             119
Comments          119
Shares            119
Likes             119
Profile Visits    119
Follows           119
Caption           119
Hashtags          119
dtype: int64
```

In [29]:
```
print(data1.cov())
```

```
              Impressions          Saves
Impressions  2.346221e+07  590009.646703
Saves        5.900096e+05   24435.233015
```

In [13]:
```
from scipy.stats import spearmanr
from scipy.stats import pearsonr
```

In [30]:
```
data2=data[["Shares","Likes"]]
data2
```

Out[30]:

	Shares	Likes
0	5	162
1	14	224
2	1	131
3	7	213
4	4	123
...	...	...
114	38	373
115	1	148
116	1	92
117	75	549
118	26	443

119 rows × 2 columns

In [31]:
```
print(spearmanr(data1,data2))
```

```
SpearmanrResult(correlation=array([[1.        , 0.6878312 , 0.46509098, 0.853
72195],
       [0.6878312 , 1.        , 0.61795509, 0.84970296],
       [0.46509098, 0.61795509, 1.        , 0.5692667 ],
       [0.85372195, 0.84970296, 0.5692667 , 1.        ]]), pvalue=array([[0.0
0000000e+00, 5.57179233e-18, 9.87370888e-08, 5.99576983e-35],
       [5.57179233e-18, 0.00000000e+00, 7.05458788e-14, 2.59014227e-34],
       [9.87370888e-08, 7.05458788e-14, 0.00000000e+00, 1.42478205e-11],
       [5.99576983e-35, 2.59014227e-34, 1.42478205e-11, 0.00000000e+00]]))
```

In [ ]:

In [ ]: