Visualize the data using Python libraries matplotlib, seaborn by plotting the graphs for Facebook metrics data sets. (Draw Boxplot, Histogram, Single Line Graph, Multiple Line Graph)

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

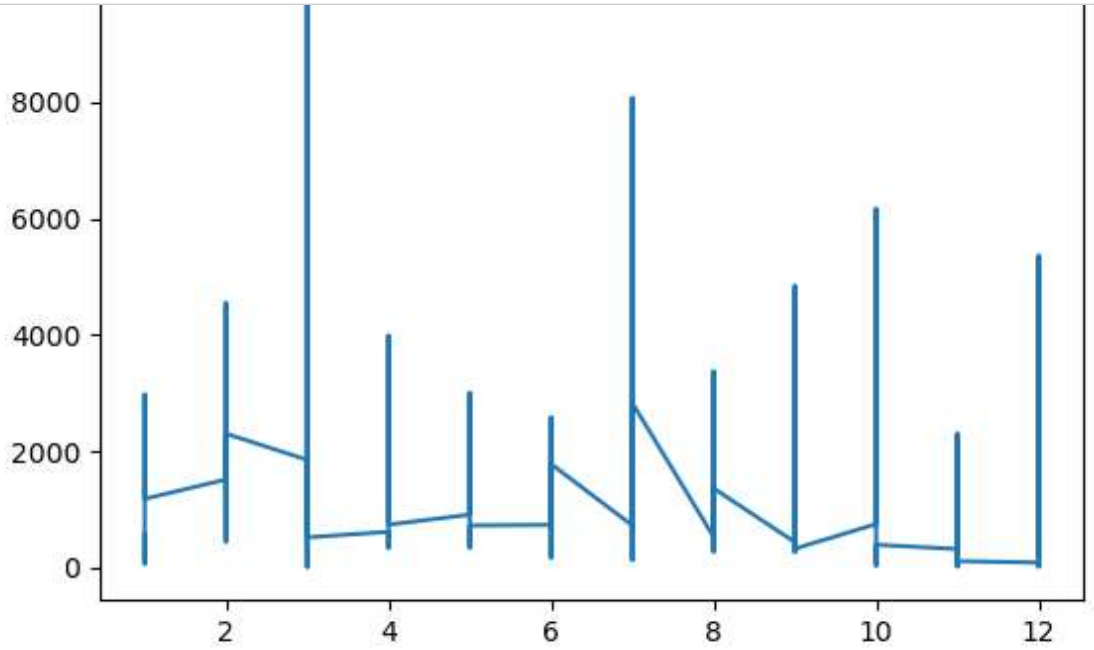
In [2]:
```
df = pd.read_csv(r"C:\Users\yasha\Desktop\Ashish\sem 6\DSBDA\DSBDA Lab Datase
df
```

Out[2]:

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users
0	139441	Photo	2	12	4	3	0.0	2752	5091	178
1	139441	Status	2	12	3	10	0.0	10460	19057	1457
2	139441	Photo	3	12	3	3	0.0	2413	4373	177
3	139441	Photo	2	12	2	10	1.0	50128	87991	2211
4	139441	Photo	2	12	2	3	0.0	7244	13594	671
...	...	...	...	...	...	...	...	...	...	...
495	85093	Photo	3	1	7	2	0.0	4684	7536	733
496	81370	Photo	2	1	5	8	0.0	3480	6229	537
497	81370	Photo	1	1	5	2	0.0	3778	7216	625
498	81370	Photo	3	1	4	11	0.0	4156	7564	626
499	81370	Photo	2	1	4	4	NaN	4188	7292	564

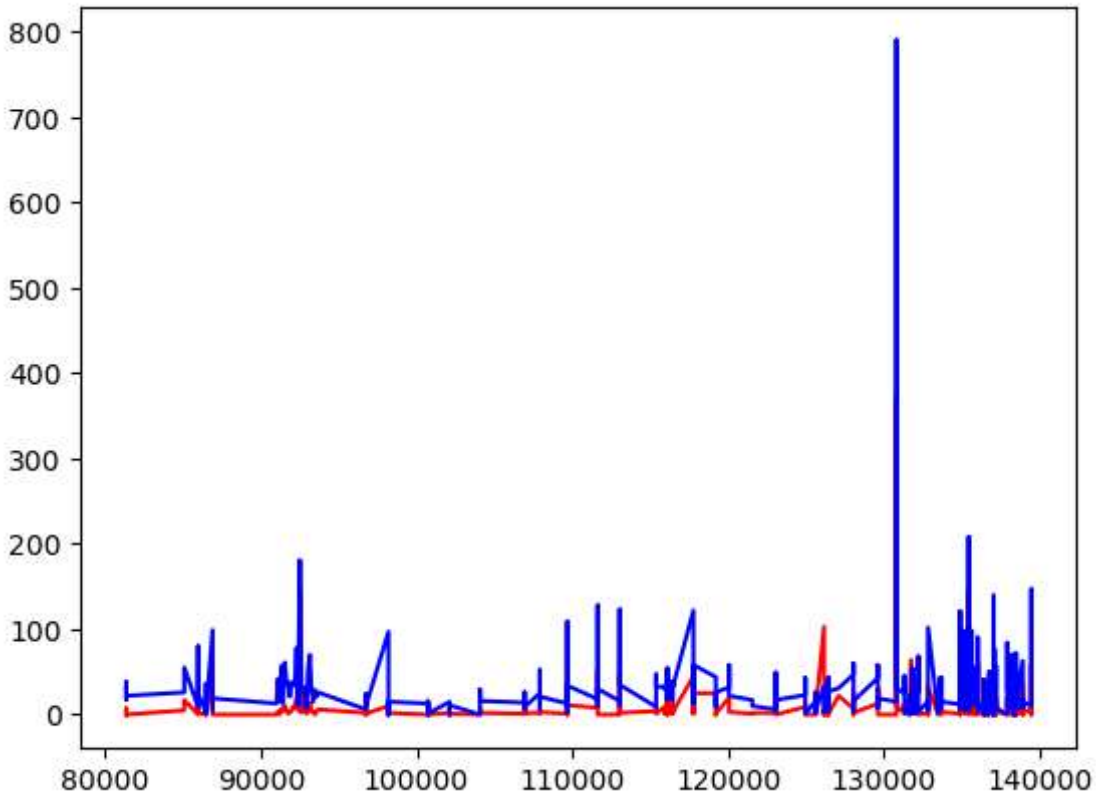
500 rows × 19 columns

In [3]:
```
#Graph plot
x=df['Post Month']
y=df['Lifetime Engaged Users']
plt.plot(x,y)
```



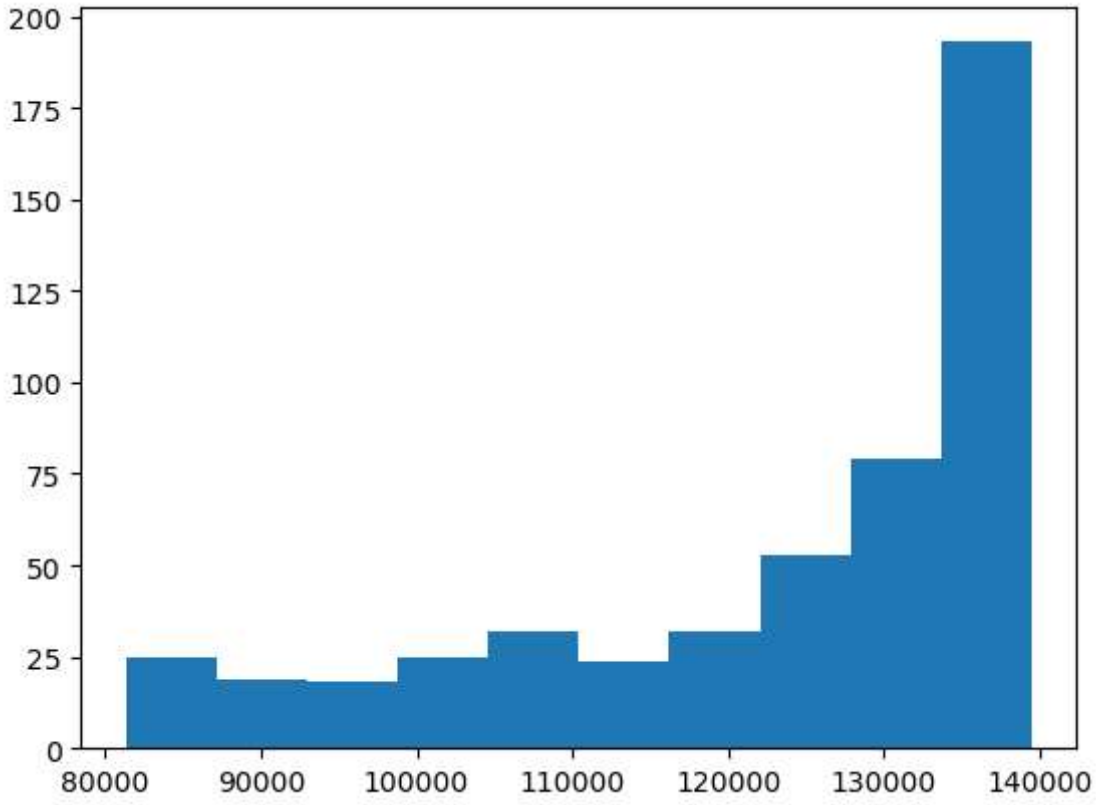
In [6]:
```
#multiline graph
x=df['Page total likes']
y=df['comment']
z=df['share']
plt.plot(x,y,color="red")
plt.plot(x,z,color='blue')
```

Out[6]: [<matplotlib.lines.Line2D at 0x246d2ab2950>]



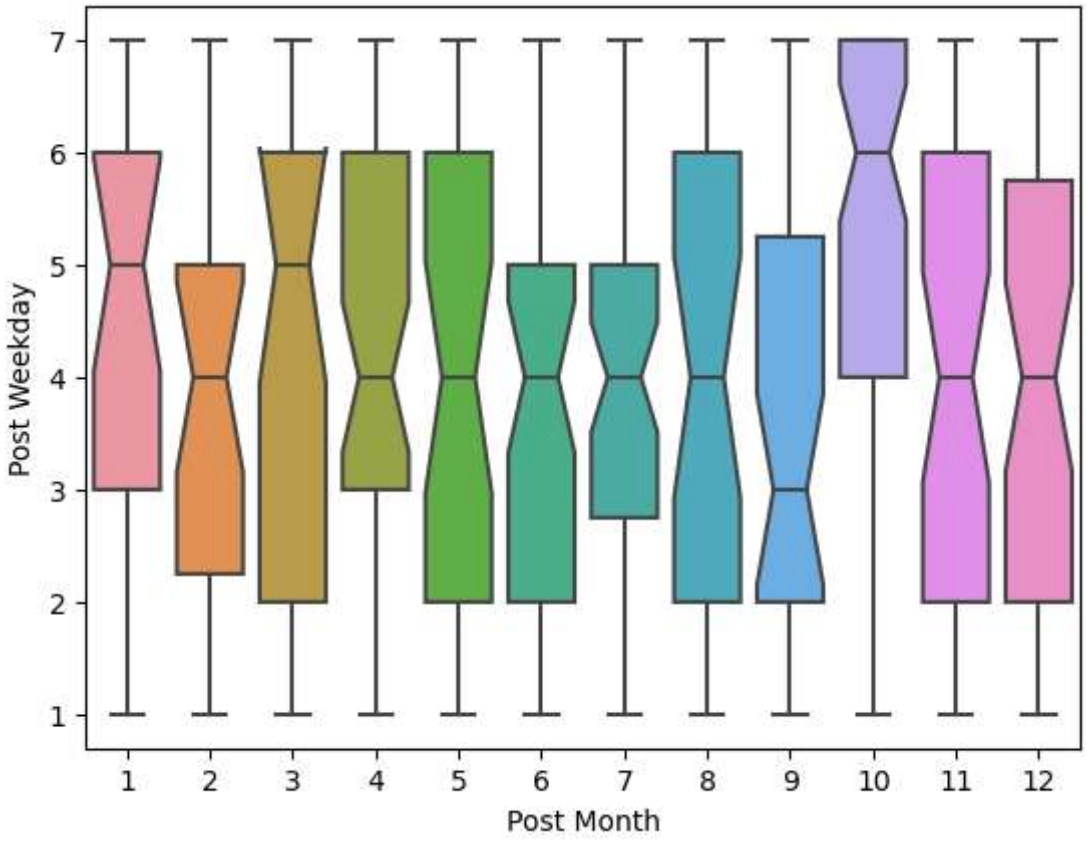
In [7]:
```
#histogram
x=np.random.normal(df['Page total likes'])
plt.hist(x)
```

Out[7]:
```
(array([ 25.,  19.,  18.,  25.,  32.,  24.,  32.,  53.,  79., 193.]),
 array([ 81369.14320857,  87176.47345451,  92983.80370044,  98791.13394637,
        104598.4641923 , 110405.79443823, 116213.12468417, 122020.4549301 ,
        127827.78517603, 133635.11542196, 139442.4456679 ]),
 <BarContainer object of 10 artists>)
```



In [11]:
```
sns.boxplot(x=df['Post Month'], y=df['Post Weekday'], notch=True)
```

Out[11]:
```
<Axes: xlabel='Post Month', ylabel='Post Weekday'>
```



In [12]:
```
sns.heatmap(df.corr())
```

```
C:\Users\yasha\AppData\Local\Temp\ipykernel_21508\58359773.py:1: FutureWarni
ng: The default value of numeric_only in DataFrame.corr is deprecated. In a
future version, it will default to False. Select only valid columns or speci
fy the value of numeric_only to silence this warning.
  sns.heatmap(df.corr())
```

Out[12]: <Axes: >