In [3]:
```
import pandas as pd
import numpy as np
df = pd.read_csv("dataset_Facebook (1).csv")
df
```

Out[3]:

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetin Po Consume
0	139441	Photo	2	12	4	3	0.0	2752	5091	178	1
1	139441	Status	2	12	3	10	0.0	10460	19057	1457	13
2	139441	Photo	3	12	3	3	0.0	2413	4373	177	1
3	139441	Photo	2	12	2	10	1.0	50128	87991	2211	7
4	139441	Photo	2	12	2	3	0.0	7244	13594	671	4
...	...	...	...	...	...	...	...	...	...	...	
495	85093	Photo	3	1	7	2	0.0	4684	7536	733	7
496	81370	Photo	2	1	5	8	0.0	3480	6229	537	5
497	81370	Photo	1	1	5	2	0.0	3778	7216	625	5
498	81370	Photo	3	1	4	11	0.0	4156	7564	626	5
499	81370	Photo	2	1	4	4	NaN	4188	7292	564	5

500 rows × 19 columns

In [4]:
```
df.describe()
```

Out[4]:

	Page total likes	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetir Impr
count	500.000000	500.000000	500.000000	500.000000	500.000000	499.000000	500.00000	5.0000
mean	123194.176000	1.880000	7.038000	4.150000	7.840000	0.278557	13903.36000	2.9585
std	16272.813214	0.852675	3.307936	2.030701	4.368589	0.448739	22740.78789	7.6803
min	81370.000000	1.000000	1.000000	1.000000	1.000000	0.000000	238.00000	5.7000
25%	112676.000000	1.000000	4.000000	2.000000	3.000000	0.000000	3315.00000	5.6947
50%	129600.000000	2.000000	7.000000	4.000000	9.000000	0.000000	5281.00000	9.0510
75%	136393.000000	3.000000	10.000000	6.000000	11.000000	1.000000	13168.00000	2.2085
max	139441.000000	3.000000	12.000000	7.000000	23.000000	1.000000	180480.00000	1.1102

In [6]:
```
df.shape
```

Out[6]:
```
(500, 19)
```

In [7]:
```
df.isnull().sum()
```

Out[7]:
```
Page total likes                                                    0
Type                                                                0
Category                                                            0
Post Month                                                          0
Post Weekday                                                        0
Post Hour                                                           0
Paid                                                                1
Lifetime Post Total Reach                                           0
Lifetime Post Total Impressions                                     0
Lifetime Engaged Users                                              0
Lifetime Post Consumers                                             0
Lifetime Post Consumptions                                          0
Lifetime Post Impressions by people who have liked your Page        0
Lifetime Post reach by people who like your Page                    0
Lifetime People who have liked your Page and engaged with your post 0
comment                                                             0
like                                                                1
share                                                               4
Total Interactions                                                  0
dtype: int64
```

In [8]:
```
seta = df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[0
seta
```

Out[8]:

	Page total likes	Category	Post Month	Post Weekday
0	139441	2	12	4
1	139441	2	12	3
2	139441	3	12	3
3	139441	2	12	2
4	139441	2	12	2
5	139441	2	12	1
6	139441	3	12	1
7	139441	3	12	7
8	139441	2	12	7
9	139441	3	12	6
10	139441	2	12	5
11	139441	2	12	5
12	139441	2	12	5
13	139441	2	12	5
14	138414	2	12	4
15	138414	2	12	3

In [9]:
```
etb = df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[16:
etb
```

Out[9]:

	Page total likes	Category	Post Month	Post Weekday
16	138414	3	12	3
17	138414	1	12	2
18	138414	3	12	2
19	138414	3	12	1
20	138414	2	12	1
21	138414	1	12	7
22	138414	1	12	7
23	138414	3	12	7
24	138414	2	12	6
25	138458	2	12	6
26	138458	2	12	5
27	138458	3	12	5
28	138895	2	12	5
29	138895	1	12	4
30	138895	2	12	4

In [10]:
```
etc = df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[31:
etc
```

Out[10]:

	Page total likes	Category	Post Month	Post Weekday
31	138895	2	12	3
32	138895	3	12	3
33	138895	3	12	2
34	138895	1	12	2
35	138895	2	12	1
36	138895	3	12	1
37	138895	1	12	7
38	138895	2	12	7
39	138895	1	12	7
40	138895	2	12	6
41	138895	1	12	6
42	138353	1	12	5
43	138353	1	12	5
44	138353	1	12	4
45	138353	1	12	4
46	138353	1	12	3
47	138353	1	12	3
48	138353	1	12	2
49	138353	1	12	2
50	138353	2	11	1

In [11]:
```
merger = pd.concat([seta, setb, setc])
merger
```

Out[11]:

	Page total likes	Category	Post Month	Post Weekday
0	139441	2	12	4
1	139441	2	12	3
2	139441	3	12	3
3	139441	2	12	2
4	139441	2	12	2
5	139441	2	12	1
6	139441	3	12	1
7	139441	3	12	7
8	139441	2	12	7
9	139441	3	12	6
10	139441	2	12	5
11	139441	2	12	5
12	139441	2	12	5
13	139441	2	12	5
14	138414	2	12	4
15	138414	2	12	3
16	138414	3	12	3
17	138414	1	12	2
18	138414	3	12	2
19	138414	3	12	1
20	138414	2	12	1
21	138414	1	12	7
22	138414	1	12	7
23	138414	3	12	7
24	138414	2	12	6
25	138458	2	12	6
26	138458	2	12	5
27	138458	3	12	5
28	138895	2	12	5
29	138895	1	12	4
30	138895	2	12	4
31	138895	2	12	3
32	138895	3	12	3
33	138895	3	12	2
34	138895	1	12	2
35	138895	2	12	1
36	138895	3	12	1
37	138895	1	12	7
38	138895	2	12	7

	Page total likes	Category	Post Month	Post Weekday
39	138895	1	12	7
40	138895	2	12	6
41	138895	1	12	6
42	138353	1	12	5
43	138353	1	12	5
44	138353	1	12	4
45	138353	1	12	4
46	138353	1	12	3
47	138353	1	12	3
48	138353	1	12	2
49	138353	1	12	2
50	138353	2	11	1

In [12]:
```
sort_values = df.sort_values("Post Weekday", ascending=False)
sort_values
```

Out[12]:

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetin Po Consume
250	129600	Photo	1	7	7	6	1.0	5848	9068	622	5
428	100732	Photo	1	3	7	15	0.0	5132	9067	398	3
430	100732	Link	1	3	7	14	0.0	2933	5144	24	
431	100732	Photo	1	3	7	12	0.0	4094	7469	206	2
380	111620	Photo	1	4	7	14	0.0	128064	251269	1539	14
...	...	...	...	...	...	...	...	...	...	...	...
220	131956	Photo	2	8	1	4	0.0	2540	4372	389	3
219	131956	Photo	3	8	1	12	0.0	5746	9874	769	6
106	137020	Photo	3	10	1	11	0.0	3674	7221	452	3
107	136736	Status	2	10	1	4	0.0	9504	19556	1132	10
262	128032	Photo	2	7	1	3	0.0	3330	5461	513	4

500 rows × 19 columns

In [13]:
```
sorter = df.sort_values("Lifetime Post Total Reach", ascending=False)
sorter
```

Out[13]:

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetim Pos Consume
244	130791	Photo	2	7	3	5	1.0	180480	319133	8072	401
464	92079	Photo	1	2	6	13	0.0	158208	453213	2482	231
463	92186	Photo	3	2	7	2	1.0	153536	497910	1713	163
277	126424	Video	1	6	2	13	0.0	139008	277100	1779	164
380	111620	Photo	1	4	7	14	0.0	128064	251269	1539	140
...	...	...	...	...	...	...	...	...	...	...	
123	136393	Photo	1	10	7	7	0.0	617	1071	229	22
120	136393	Photo	1	10	7	9	0.0	584	1029	273	27
432	100732	Photo	1	3	6	17	0.0	452	726	186	18
426	100732	Photo	1	3	7	18	0.0	391	746	131	13
422	102112	Photo	1	3	1	19	0.0	238	570	143	14

500 rows × 19 columns

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

Out[14]:

	0	1	2	3	4	5	6	7	8	9	...
Page total likes	139441	139441	139441	139441	139441	139441	139441	139441	139441	139441	...
Type	Photo	Status	Photo	Photo	Photo	Status	Photo	Photo	Status	Photo	...
Category	2	2	3	2	2	2	3	3	2	3	...
Post Month	12	12	12	12	12	12	12	12	12	12	...
Post Weekday	4	3	3	2	2	1	1	7	7	6	...
Post Hour	3	10	3	10	3	9	3	9	3	10	...
Paid	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	...
Lifetime Post Total Reach	2752	10460	2413	50128	7244	10472	11692	13720	11844	4694	...
Lifetime Post Total Impressions	5091	19057	4373	87991	13594	20849	19479	24137	22538	8668	...
Lifetime Engaged Users	178	1457	177	2211	671	1191	481	537	1530	280	...
Lifetime Post Consumers	109	1361	113	790	410	1073	265	232	1407	183	...
Lifetime Post Consumptions	159	1674	154	1119	580	1389	364	305	1692	250	...
Lifetime Post Impressions by people who have liked your Page	3078	11710	2812	61027	6228	16034	15432	19728	15220	4309	...
Lifetime Post reach by people who like your Page	1640	6112	1503	32048	3200	7852	9328	11056	7912	2324	...
Lifetime People who have liked your Page and engaged with your post	119	1108	132	1386	396	1016	379	422	1250	199	...
comment	4	5	0	58	19	1	3	0	0	3	...
like	79.0	130.0	66.0	1572.0	325.0	152.0	249.0	325.0	161.0	113.0	...
share	17.0	29.0	14.0	147.0	49.0	33.0	27.0	14.0	31.0	26.0	...
Total Interactions	100	164	80	1777	393	186	279	339	192	142	...

19 rows × 500 columns

In [17]:
```
shaper = df.shape
shaper
```

Out[17]:
```
(500, 19)
```

In [18]:
```
pivot_table = pd.pivot_table(df, index = ['Type', 'Category'], values='comment'
print(pivot_table)
```

```
                  comment
Type   Category
Link   1          2.900000
       2          2.000000
       3          2.000000
Photo  1          5.897297
       2         11.692308
       3          6.913333
Status 1          4.333333
       2          9.921053
       3          2.750000
Video  1         12.285714
```

In [21]:
```
reshaper = np.array([1,2,3,4,5,6,7,8,9])
reshaper.reshape(3,3)
```

Out[21]:
```
array([[1, 2, 3],
       [4, 5, 6],
       [7, 8, 9]])
```

In [ ]:
```

```