In [6]:

```
import pandas as pd
import numpy as np
df = pd.read_csv(r"C:\Users\Vinayak\Downloads\dsbda\B_ass1\dataset_Facebook.csv",sep=","
df
df.head(5)
```

Out[6]:

	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

In [7]:

```
df.describe()
```

Out[7]:

	Page total likes	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime I Total Re
count	500.000000	500.000000	500.000000	500.000000	500.000000	499.000000	500.0(
mean	123194.176000	1.880000	7.038000	4.150000	7.840000	0.278557	13903.3(
std	16272.813214	0.852675	3.307936	2.030701	4.368589	0.448739	22740.7(
min	81370.000000	1.000000	1.000000	1.000000	1.000000	0.000000	238.0(
25%	112676.000000	1.000000	4.000000	2.000000	3.000000	0.000000	3315.0(
50%	129600.000000	2.000000	7.000000	4.000000	9.000000	0.000000	5281.0(
75%	136393.000000	3.000000	10.000000	6.000000	11.000000	1.000000	13168.0(
max	139441.000000	3.000000	12.000000	7.000000	23.000000	1.000000	180480.0(

In [8]:

```
df.shape
```

Out[8]:

```
(500, 19)
```

In [ ]:

```
##create a subset
```

In [11]:

```
df1 = df[["Page total likes","Category","Post Month","Post Weekday"]].loc[0:15]
df1
```

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

In [12]:

```
df2 = df[["Page total likes","Category","Post Month","Post Weekday"]].loc[16:30]
df2
```

Out[12]:

	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 [26]:

```
df3 = df[df['like']>100]
print(df3)
```

```
     Page total likes    Type  Category  Post Month  Post Weekday  Post
Hour  \
1               139441  Status         2          12             3
10
3               139441   Photo         2          12             2
10
4               139441   Photo         2          12             2
3
5               139441  Status         2          12             1
9
6               139441   Photo         3          12             1
3
7               139441   Photo         3          12             7
9
8               139441  Status         2          12             7
3
9               139441   Photo         3          12             6
10
10              139441  Status         2          12             5
```

In [ ]:

```
##merge data
```

In [16]:

```
merging = pd.concat([df1,df2],sort=False)
merging
```

Out[16]:

	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

In [ ]:

```
##sort data
```

In [20]:

```
sort_values = df.sort_values('Page total likes',ascending=False)
sort_values
```

486	85979	Photo	3	1	1	12	0.0	5054	8030	1020	995
487	85979	Photo	3	1	1	2	0.0	4908	7491	957	937
488	85979	Photo	3	1	7	10	0.0	9700	17442	1407	1271
489	85979	Photo	3	1	7	2	0.0	4800	7754	975	938
490	85979	Photo	3	1	6	11	0.0	5280	8703	951	911
491	85979	Photo	3	1	6	3	1.0	6184	10228	956	901
492	85979	Link	1	1	5	11	0.0	45920	5808	753	655
493	85093	Photo	3	1	1	2	0.0	8412	13960	1179	1111
494	85093	Photo	3	1	7	10	0.0	5400	9218	810	756
495	85093	Photo	3	1	7	2	0.0	4684	7536	733	708
496	81370	Photo	2	1	5	8	0.0	3480	6229	537	508
497	81370	Photo	1	1	5	2	0.0	3778	7216	625	572
498	81370	Photo	3	1	4	11	0.0	4156	7564	626	574

In [ ]:

```
##transpose data
```

In [21]:

```
df.transpose()
```

Out[21]:

	0	1	2	3	4	5	6	7	8	
Page total likes	139441	139441	139441	139441	139441	139441	139441	139441	139441	1
Type	Photo	Status	Photo	Photo	Photo	Status	Photo	Photo	Status	
Category	2	2	3	2	2	2	3	3	2	
Post Month	12	12	12	12	12	12	12	12	12	
Post Weekday	4	3	3	2	2	1	1	7	7	
Post Hour	3	10	3	10	3	9	3	9	3	
Paid	0	0	0	1	0	0	1	1	0	
Lifetime Post Total Reach	2752	10460	2413	50128	7244	10472	11692	13720	11844	
Lifetime Post Total Impressions	5091	19057	4373	87991	13594	20849	19479	24137	22538	
Lifetime Engaged Users	178	1457	177	2211	671	1191	481	537	1530	
Lifetime Post Consumers	109	1361	113	790	410	1073	265	232	1407	
Lifetime Post Consumptions	159	1674	154	1119	580	1389	364	305	1692	
Lifetime Post Impressions by people who have liked your Page	3078	11710	2812	61027	6228	16034	15432	19728	15220	
Lifetime Post reach by people who like your Page	1640	6112	1503	32048	3200	7852	9328	11056	7912	
Lifetime People who have liked your Page and engaged with your post	119	1108	132	1386	396	1016	379	422	1250	
comment	4	5	0	58	19	1	3	0	0	
like	79	130	66	1572	325	152	249	325	161	
share	17	29	14	147	49	33	27	14	31	
Total Interactions	100	164	80	1777	393	186	279	339	192	

19 rows × 500 columns

In [ ]:

```
##shape and reshape
```

In [22]:

```
shaping=df.shape
shaping
```

Out[22]:

```
(500, 19)
```

In [23]:

```
pivot_table = pd.pivot_table(df,index=['Type','Category'],values='like')
print(pivot_table)
```

```
                      like
Type   Category
Link   1          75.650000
       2          32.000000
       3          68.000000
Photo  1         126.000000
       2         235.857143
       3         219.753333
Status 1         136.333333
       2         182.552632
       3         151.500000
Video  1         231.428571
```