In [1]:

```
import pandas as pd
import numpy as np
```

In [7]:

```
df = pd.read_csv(r"C:/Users/sagar/Desktop/DATASETS/dataset_Facebook.csv",sep =';')
```

In [8]:

```
df
```

Out[8]:

	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 [33]:

```
#subset creation

subset1=df[['Page total likes','Type','Category']].loc[0:15]  #0 to 15 records are extracted
```

In [34]:

```
subset1
```

Out[34]:

	Page total likes	Type	Category
0	139441	Photo	2
1	139441	Status	2
2	139441	Photo	3
3	139441	Photo	2
4	139441	Photo	2
5	139441	Status	2
6	139441	Photo	3
7	139441	Photo	3
8	139441	Status	2
9	139441	Photo	3
10	139441	Status	2
11	139441	Photo	2
12	139441	Photo	2
13	139441	Photo	2
14	138414	Photo	2
15	138414	Status	2

In [35]:

```
subset2=df[['Page total likes','Type','Category']].loc[16:30]
```

In [36]:

```
subset2
```

Out[36]:

	Page total likes	Type	Category
16	138414	Photo	3
17	138414	Photo	1
18	138414	Status	3
19	138414	Photo	3
20	138414	Photo	2
21	138414	Photo	1
22	138414	Link	1
23	138414	Photo	3
24	138414	Status	2
25	138458	Status	2
26	138458	Status	2
27	138458	Photo	3
28	138895	Photo	2
29	138895	Video	1
30	138895	Photo	2

In [37]:

```
subset3=df[['Page total likes','Type','Category']].loc[31:50]
```

In [38]:

```
subset3
```

Out[38]:

	Page total likes	Type	Category
31	138895	Photo	2
32	138895	Photo	3
33	138895	Photo	3
34	138895	Photo	1
35	138895	Photo	2
36	138895	Photo	3
37	138895	Photo	1
38	138895	Status	2
39	138895	Photo	1
40	138895	Status	2
41	138895	Link	1
42	138353	Photo	1
43	138353	Link	1
44	138353	Photo	1
45	138353	Link	1
46	138353	Status	1
47	138353	Link	1
48	138353	Photo	1
49	138353	Link	1
50	138353	Photo	2

In [39]:

```
#display total number of rows and columns
df.shape
```

Out[39]:

```
(500, 19)
```

In [40]:

```
#merging data
merging=pd.concat([subset1,subset2,subset3])
```

In [41]:

```
merging
```

Out[41]:

	Page total likes	Type	Category
0	139441	Photo	2
1	139441	Status	2
2	139441	Photo	3
3	139441	Photo	2
4	139441	Photo	2
5	139441	Status	2
6	139441	Photo	3
7	139441	Photo	3
8	139441	Status	2
9	139441	Photo	3
10	139441	Status	2
11	139441	Photo	2
12	139441	Photo	2
13	139441	Photo	2
14	138414	Photo	2
15	138414	Status	2
16	138414	Photo	3
17	138414	Photo	1
18	138414	Status	3
19	138414	Photo	3
20	138414	Photo	2
21	138414	Photo	1
22	138414	Link	1
23	138414	Photo	3
24	138414	Status	2
25	138458	Status	2
26	138458	Status	2
27	138458	Photo	3
28	138895	Photo	2
29	138895	Video	1
30	138895	Photo	2
31	138895	Photo	2
32	138895	Photo	3
33	138895	Photo	3
34	138895	Photo	1
35	138895	Photo	2
36	138895	Photo	3
37	138895	Photo	1
38	138895	Status	2
39	138895	Photo	1

	Page total likes	Type	Category
40	138895	Status	2
41	138895	Link	1
42	138353	Photo	1
43	138353	Link	1
44	138353	Photo	1
45	138353	Link	1
46	138353	Status	1
47	138353	Link	1
48	138353	Photo	1
49	138353	Link	1
50	138353	Photo	2

In [45]:

```
#sorting the data
sort_values=df.sort_values('Page total likes',ascending=False) #to sort values in decending value
```

In [46]:

```
sort_values
```

0	139441	Photo	2	12	4	3	0.0	2752	5091	178	109
8	139441	Status	2	12	7	3	0.0	11844	22538	1530	1407
1	139441	Status	2	12	3	10	0.0	10460	19057	1457	1361
12	139441	Photo	2	12	5	10	0.0	2847	5133	193	115
11	139441	Photo	2	12	5	10	0.0	3112	5590	208	127
...	...	...	...	...	...	...	...	...	...	...	...
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
499	81370	Photo	2	1	4	4	NaN	4188	7292	564	524

In [50]:

```
#transposing data
#columns are changed to rows and rows changed to columns
```

In [51]:

```
df.transpose()
```

Out[51]:

	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 [52]:

```
#shape and reshape
shaping=df.shape
```

In [53]:

```
shaping
```

Out[53]:

```
(500, 19)
```

In [56]:

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

In [57]:

```
print(pivot_table)# reshaping means that for this index(type and category) this are likes values
```

```
                     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
```

In [63]:

```
#example to understand the reshaping
reshaping_arr=np.array([1,2,3,4,5,6])
reshaping_arr.reshape(3,2)
```

Out[63]:

```
array([[1, 2],
       [3, 4],
       [5, 6]])
```

In [59]:

```
#convert this array into 3 rows and 2 columns
```

In [ ]:

```

```