```
import pandas as pd
import numpy as np
df=pd.read_csv(r"/content/dataset_Facebook.csv",sep=";")
df
```

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lif Cons
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

```
df.describe()
```

	Page total likes	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	I
count	500.000000	500.000000	500.000000	500.000000	500.000000	499.000000	500.00000	5
mean	123194.176000	1.880000	7.038000	4.150000	7.840000	0.278557	13903.36000	2
std	16272.813214	0.852675	3.307936	2.030701	4.368589	0.448739	22740.78789	7
min	81370.000000	1.000000	1.000000	1.000000	1.000000	0.000000	238.00000	5
25%	112676.000000	1.000000	4.000000	2.000000	3.000000	0.000000	3315.00000	5
50%	129600.000000	2.000000	7.000000	4.000000	9.000000	0.000000	5281.00000	9
75%	136393.000000	3.000000	10.000000	6.000000	11.000000	1.000000	13168.00000	2
max	139441.000000	3.000000	12.000000	7.000000	23.000000	1.000000	180480.00000	1

```
df.shape
```

```
(500, 19)
```

```
#creating subset
df1=df[['Page total likes', 'Type', 'Category','Post Month']].loc[0:15]
df1
```

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

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

```
df3=df[['Page total likes', 'Type', 'Category','Post Month']].loc[31:50]
df3
```

```
#merge dataset
merging=pd.concat([df1,df2,df3])
merging
```

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

	Page total likes	Type	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetime Post Consumers	Lifetime Post Consumptions	Lifetime Post Impressions by people who have liked your Page	Lifetime Post reach by people who like your Page	Lifetim Peopl who hav like you Page an engage wit you pos
0	139441	Photo	2	12	4	3	0.0	2752	5091	178	109	159	3078	1640	11
8	139441	Status	2	12	7	3	0.0	11844	22538	1530	1407	1692	15220	7912	125
1	139441	Status	2	12	3	10	0.0	10460	19057	1457	1361	1674	11710	6112	110
12	139441	Photo	2	12	5	10	0.0	2847	5133	193	115	133	3779	2072	15
11	139441	Photo	2	12	5	10	0.0	3112	5590	208	127	145	3887	2174	16
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.
495	85093	Photo	3	1	7	2	0.0	4684	7536	733	708	985	4750	2876	39
496	81370	Photo	2	1	5	8	0.0	3480	6229	537	508	687	3961	2104	30
497	81370	Photo	1	1	5	2	0.0	3778	7216	625	572	795	4742	2388	36
498	81370	Photo	3	1	4	11	0.0	4156	7564	626	574	832	4534	2452	37
499	81370	Photo	2	1	4	4	NaN	4188	7292	564	524	743	3861	2200	31

500 rows × 19 columns

```
#transporting
df.transpose()
```

	0	1	2	3	4	5	6	7	8	9	...	490	491	492	493	494	495	49
Page total likes	139441	139441	139441	139441	139441	139441	139441	139441	139441	139441	...	85979	85979	85979	85093	85093	85093	8137
Type	Photo	Status	Photo	Photo	Photo	Status	Photo	Photo	Status	Photo	...	Photo	Photo	Link	Photo	Photo	Photo	Phot
Category	2	2	3	2	2	2	3	3	2	3	...	3	3	1	3	3	3	
Post Month	12	12	12	12	12	12	12	12	12	12	...	1	1	1	1	1	1	
Post Weekday	4	3	3	2	2	1	1	7	7	6	...	6	6	5	1	7	7	
Post Hour	3	10	3	10	3	9	3	9	3	10	...	11	3	11	2	10	2	
Paid	0.0	0.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	0.0	...	0.0	1.0	0.0	0.0	0.0	0.0	0.
Lifetime Post Total Reach	2752	10460	2413	50128	7244	10472	11692	13720	11844	4694	...	5280	6184	45920	8412	5400	4684	348
Lifetime Post Total Impressions	5091	19057	4373	87991	13594	20849	19479	24137	22538	8668	...	8703	10228	5808	13960	9218	7536	622
Lifetime Engaged Users	178	1457	177	2211	671	1191	481	537	1530	280	...	951	956	753	1179	810	733	53
Lifetime Post Consumers	109	1361	113	790	410	1073	265	232	1407	183	...	911	901	655	1111	756	708	50
Lifetime Post Consumptions	159	1674	154	1119	580	1389	364	305	1692	250	...	1237	1140	763	1632	1003	985	68
Lifetime Post Impressions by people who have liked your Page	3078	11710	2812	61027	6228	16034	15432	19728	15220	4309	...	5757	6085	15766	8632	5654	4750	396
Lifetime Post reach by people who like your Page	1640	6112	1503	32048	3200	7852	9328	11056	7912	2324	...	3300	3502	10720	5348	3230	2876	210
Lifetime People who have liked your Page and engaged with your post	119	1108	132	1386	396	1016	379	422	1250	199	...	431	437	220	699	422	392	30
comment	4	5	0	58	19	1	3	0	0	3	...	1	1	0	17	10	5	
like	79.0	130.0	66.0	1572.0	325.0	152.0	249.0	325.0	161.0	113.0	...	79.0	105.0	128.0	185.0	125.0	53.0	53.
share	17.0	29.0	14.0	147.0	49.0	33.0	27.0	14.0	31.0	26.0	...	30.0	46.0	9.0	55.0	41.0	26.0	22.
Total Interactions	100	164	80	1777	393	186	279	339	192	142	...	110	152	137	257	176	84	7

19 rows × 500 columns

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

```
(500, 19)
```

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