```python
import pandas as pd

import numpy as np

path = "/content/drive/MyDrive/dataset_Facebook.csv"

df = pd.read_csv(path)

df = pd.read_csv(path, sep=";")

df
```

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

500 rows × 19 columns

```python
df.describe()
```

	Page total likes	Category	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Life Post T Impress
count	500.000000	500.000000	500.000000	500.000000	500.000000	499.000000	500.00000	5.000000
mean	123194.176000	1.880000	7.038000	4.150000	7.840000	0.278557	13903.36000	2.958595
std	16272.813214	0.852675	3.307936	2.030701	4.368589	0.448739	22740.78789	7.680325
min	81370.000000	1.000000	1.000000	1.000000	1.000000	0.000000	238.00000	5.700000
25%	112676.000000	1.000000	4.000000	2.000000	3.000000	0.000000	3315.00000	5.694750
50%	129600.000000	2.000000	7.000000	4.000000	9.000000	0.000000	5281.00000	9.051000
75%	136393.000000	3.000000	10.000000	6.000000	11.000000	1.000000	13168.00000	2.208550
max	139441.000000	3.000000	12.000000	7.000000	23.000000	1.000000	180480.00000	1.110282

```python
df.shape
```

```
(500, 19)
```

```
# Subset 1
df1=df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[0:15]
df1
```

	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

```
# Subset 2
df2=df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[16:30]
df2
```

	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

```
# Subset 3
df3=df[['Page total likes', 'Category', 'Post Month', 'Post Weekday']].loc[31:50]
df3
```

	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

```
#Merge Data
merging=pd.concat([df1,df2,df3])
merging
```

```
#Sort Data
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
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

500 rows × 19 columns

21   138414   1   12   7

```
#Transpose
df.transpose()
```

	0	1	2	3	4	5	6	7	8	9	...
Page total likes	139441	139441	139441	139441	139441	139441	139441	139441	139441	139441	... 8
Type	Photo	Status	Photo	Photo	Photo	Status	Photo	Photo	Status	Photo	... F
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											

```
#Shape and Reshape of data
shaping=df.shape
shaping

    (500, 19)


#Reshaping
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


reshaping_arr= np.array([1,2,3,4,5,6])
reshaping_arr.reshape(3,2)

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