

In [1]:

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

In [8]:

```
df=pd.read_csv("dataset_Facebook.csv", sep=';')
```

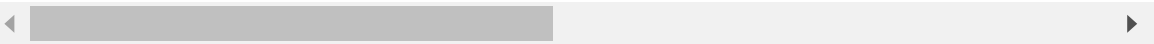
In [9]:

```
df
```

Out[9]:

	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	2217
4	139441	Photo		2	12	2	3	0.0	7244	13594	678
...
495	85093	Photo		3	1	7	2	0.0	4684	7536	738
496	81370	Photo		2	1	5	8	0.0	3480	6229	538
497	81370	Photo		1	1	5	2	0.0	3778	7216	628
498	81370	Photo		3	1	4	11	0.0	4156	7564	628
499	81370	Photo		2	1	4	4	NaN	4188	7292	564

500 rows × 19 columns



In [10]:

```
df.shape
```

Out[10]:

(500, 19)

In [11]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 500 entries, 0 to 499
Data columns (total 19 columns):
 #   Column              Non-Null Count  Dtype
---  -
 0   Page total likes    500 non-null    int64
 1   Type                500 non-null    object
 2   Category            500 non-null    int64
 3   Post Month          500 non-null    int64
 4   Post Weekday        500 non-null    int64
 5   Post Hour           500 non-null    int64
 6   Paid                499 non-null    float64
 7   Lifetime Post Total Reach  500 non-null    int64
 8   Lifetime Post Total Impressions  500 non-null    int64
 9   Lifetime Engaged Users  500 non-null    int64
10   Lifetime Post Consumers  500 non-null    int64
11   Lifetime Post Consumptions  500 non-null    int64
12   Lifetime Post Impressions by people who have liked your Page  500 non-null    int64
13   Lifetime Post reach by people who like your Page  500 non-null    int64
14   Lifetime People who have liked your Page and engaged with your post  500 non-null    int64
15   comment             500 non-null    int64
16   like                499 non-null    float64
17   share               496 non-null    float64
18   Total Interactions   500 non-null    int64
dtypes: float64(3), int64(15), object(1)
memory usage: 74.3+ KB
```

In [12]:

```
df.loc[[1,2,3,4]]
```

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	
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 [13]:

```
df.iloc[6:14,3:25]
```

Out[13]:

	Post Month	Post Weekday	Post Hour	Paid	Lifetime Post Total Reach	Lifetime Post Total Impressions	Lifetime Engaged Users	Lifetime Post Consumers	Lifetime Po Consumption
6	12	1	3	1.0	11692	19479	481	265	36
7	12	7	9	1.0	13720	24137	537	232	30
8	12	7	3	0.0	11844	22538	1530	1407	165
9	12	6	10	0.0	4694	8668	280	183	25
10	12	5	10	0.0	21744	42334	4258	4100	454
11	12	5	10	0.0	3112	5590	208	127	14
12	12	5	10	0.0	2847	5133	193	115	13
13	12	5	3	0.0	2549	4896	249	134	16

Creating Subset

In [38]:

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

In [39]:

```
df1
```

Out[39]:

	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 [40]:

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

In [41]:

```
df2
```

Out[41]:

	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

Merging Data

In [42]:

```
merged_df=pd.concat([df1,df2])
```

In [43]:

```
merged_df
```

Out[43]:

	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

Sort Data

In [29]:

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

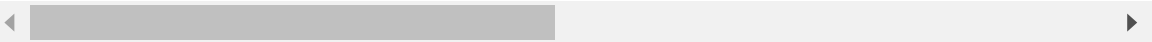
In [30]:

```
sort_values
```

Out[30]:

	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
8	139441	Status	2	12	7	3	0.0	11844	22538	1530
1	139441	Status	2	12	3	10	0.0	10460	19057	1451
12	139441	Photo	2	12	5	10	0.0	2847	5133	190
11	139441	Photo	2	12	5	10	0.0	3112	5590	208
...
495	85093	Photo	3	1	7	2	0.0	4684	7536	730
496	81370	Photo	2	1	5	8	0.0	3480	6229	530
497	81370	Photo	1	1	5	2	0.0	3778	7216	620
498	81370	Photo	3	1	4	11	0.0	4156	7564	620
499	81370	Photo	2	1	4	4	NaN	4188	7292	560

500 rows × 19 columns



In [31]:

```
df.transpose()
```

Out[31]:

	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	0.0	0.0	1.0	0.0	0.0	1.0	1.0	0.0	
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	79.0	130.0	66.0	1572.0	325.0	152.0	249.0	325.0	161.0	
share	17.0	29.0	14.0	147.0	49.0	33.0	27.0	14.0	31.0	
Total Interactions	100	164	80	1777	393	186	279	339	192	

19 rows × 500 columns



Shape and Reshape

In [32]:

```
shaping=df.shape
```

In [33]:

```
shaping
```

Out[33]:

(500, 19)

In [34]:

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

In [35]:

```
pivot_table
```

Out[35]:

		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 [44]:

```
reshaping=np.array([1,2,3,4,5,6])  
reshaping
```

Out[44]:

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

In [37]:

```
reshaping.reshape(3,2)
```

Out[37]:

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

In []: