

facebook

May 1, 2025

```
[24]: import pandas as pd
```

```
[25]: df =pd.read_csv('dataset_Facebook.csv', sep= ';')
```

```
[26]: df
```

```
[26]:
```

| | Page total likes | Type | Category | Post Month | Post Weekday | Post Hour \ |
|-----|------------------|--------|----------|------------|--------------|-------------|
| 0 | 139441 | Photo | 2 | 12 | 4 | 3 |
| 1 | 139441 | Status | 2 | 12 | 3 | 10 |
| 2 | 139441 | Photo | 3 | 12 | 3 | 3 |
| 3 | 139441 | Photo | 2 | 12 | 2 | 10 |
| 4 | 139441 | Photo | 2 | 12 | 2 | 3 |
| .. | ... | ... | ... | ... | ... | ... |
| 495 | 85093 | Photo | 3 | 1 | 7 | 2 |
| 496 | 81370 | Photo | 2 | 1 | 5 | 8 |
| 497 | 81370 | Photo | 1 | 1 | 5 | 2 |
| 498 | 81370 | Photo | 3 | 1 | 4 | 11 |
| 499 | 81370 | Photo | 2 | 1 | 4 | 4 |

| | Paid | Lifetime Post Total | Reach | Lifetime Post Total Impressions \ |
|-----|------|---------------------|-------|-----------------------------------|
| 0 | 0.0 | | 2752 | 5091 |
| 1 | 0.0 | | 10460 | 19057 |
| 2 | 0.0 | | 2413 | 4373 |
| 3 | 1.0 | | 50128 | 87991 |
| 4 | 0.0 | | 7244 | 13594 |
| .. | ... | | ... | ... |
| 495 | 0.0 | | 4684 | 7536 |
| 496 | 0.0 | | 3480 | 6229 |
| 497 | 0.0 | | 3778 | 7216 |
| 498 | 0.0 | | 4156 | 7564 |
| 499 | NaN | | 4188 | 7292 |

| | Lifetime Engaged Users | Lifetime Post Consumers \ |
|---|------------------------|---------------------------|
| 0 | 178 | 109 |
| 1 | 1457 | 1361 |
| 2 | 177 | 113 |
| 3 | 2211 | 790 |

| | | |
|-----|-----|-----|
| 4 | 671 | 410 |
| .. | ... | ... |
| 495 | 733 | 708 |
| 496 | 537 | 508 |
| 497 | 625 | 572 |
| 498 | 626 | 574 |
| 499 | 564 | 524 |

| | |
|------------------------------|------|
| Lifetime Post Consumptions \ | |
| 0 | 159 |
| 1 | 1674 |
| 2 | 154 |
| 3 | 1119 |
| 4 | 580 |
| .. | ... |
| 495 | 985 |
| 496 | 687 |
| 497 | 795 |
| 498 | 832 |
| 499 | 743 |

| | |
|--|-------|
| Lifetime Post Impressions by people who have liked your Page \ | |
| 0 | 3078 |
| 1 | 11710 |
| 2 | 2812 |
| 3 | 61027 |
| 4 | 6228 |
| .. | ... |
| 495 | 4750 |
| 496 | 3961 |
| 497 | 4742 |
| 498 | 4534 |
| 499 | 3861 |

| | |
|--|-------|
| Lifetime Post reach by people who like your Page \ | |
| 0 | 1640 |
| 1 | 6112 |
| 2 | 1503 |
| 3 | 32048 |
| 4 | 3200 |
| .. | ... |
| 495 | 2876 |
| 496 | 2104 |
| 497 | 2388 |
| 498 | 2452 |
| 499 | 2200 |

| | Lifetime People who have liked your Page and engaged with your post \ |
|-----|---|
| 0 | 119 |
| 1 | 1108 |
| 2 | 132 |
| 3 | 1386 |
| 4 | 396 |
| .. | ... |
| 495 | 392 |
| 496 | 301 |
| 497 | 363 |
| 498 | 370 |
| 499 | 316 |

| | comment | like | share | Total Interactions |
|-----|---------|--------|-------|--------------------|
| 0 | 4 | 79.0 | 17.0 | 100 |
| 1 | 5 | 130.0 | 29.0 | 164 |
| 2 | 0 | 66.0 | 14.0 | 80 |
| 3 | 58 | 1572.0 | 147.0 | 1777 |
| 4 | 19 | 325.0 | 49.0 | 393 |
| .. | ... | ... | ... | ... |
| 495 | 5 | 53.0 | 26.0 | 84 |
| 496 | 0 | 53.0 | 22.0 | 75 |
| 497 | 4 | 93.0 | 18.0 | 115 |
| 498 | 7 | 91.0 | 38.0 | 136 |
| 499 | 0 | 91.0 | 28.0 | 119 |

[500 rows x 19 columns]

```
[27]: df.head()
```

| | Page total likes | Type | Category | Post Month | Post Weekday | Post Hour | \ |
|---|------------------|--------|----------|------------|--------------|-----------|---|
| 0 | 139441 | Photo | 2 | 12 | 4 | 3 | |
| 1 | 139441 | Status | 2 | 12 | 3 | 10 | |
| 2 | 139441 | Photo | 3 | 12 | 3 | 3 | |
| 3 | 139441 | Photo | 2 | 12 | 2 | 10 | |
| 4 | 139441 | Photo | 2 | 12 | 2 | 3 | |

| | Paid | Lifetime Post Total | Reach | Lifetime Post Total Impressions | \ |
|---|------|---------------------|-------|---------------------------------|---|
| 0 | 0.0 | | 2752 | 5091 | |
| 1 | 0.0 | | 10460 | 19057 | |
| 2 | 0.0 | | 2413 | 4373 | |
| 3 | 1.0 | | 50128 | 87991 | |
| 4 | 0.0 | | 7244 | 13594 | |

| | Lifetime Engaged Users | Lifetime Post Consumers | \ |
|---|------------------------|-------------------------|---|
| 0 | 178 | 109 | |
| 1 | 1457 | 1361 | |

| | | |
|---|------|-----|
| 2 | 177 | 113 |
| 3 | 2211 | 790 |
| 4 | 671 | 410 |

| | |
|---|------------------------------|
| | Lifetime Post Consumptions \ |
| 0 | 159 |
| 1 | 1674 |
| 2 | 154 |
| 3 | 1119 |
| 4 | 580 |

| | |
|---|--|
| | Lifetime Post Impressions by people who have liked your Page \ |
| 0 | 3078 |
| 1 | 11710 |
| 2 | 2812 |
| 3 | 61027 |
| 4 | 6228 |

| | |
|---|--|
| | Lifetime Post reach by people who like your Page \ |
| 0 | 1640 |
| 1 | 6112 |
| 2 | 1503 |
| 3 | 32048 |
| 4 | 3200 |

| | |
|---|---|
| | Lifetime People who have liked your Page and engaged with your post \ |
| 0 | 119 |
| 1 | 1108 |
| 2 | 132 |
| 3 | 1386 |
| 4 | 396 |

| | comment | like | share | Total Interactions |
|---|---------|--------|-------|--------------------|
| 0 | 4 | 79.0 | 17.0 | 100 |
| 1 | 5 | 130.0 | 29.0 | 164 |
| 2 | 0 | 66.0 | 14.0 | 80 |
| 3 | 58 | 1572.0 | 147.0 | 1777 |
| 4 | 19 | 325.0 | 49.0 | 393 |

```
[28]: df.shape
```

```
[28]: (500, 19)
```

```
[29]: df.tail()
```

```
[29]:
```

| | Page total likes | Type | Category | Post Month | Post Weekday | Post Hour | \ |
|-----|------------------|-------|----------|------------|--------------|-----------|---|
| 495 | 85093 | Photo | 3 | 1 | 7 | 2 | |

| | | | | | | |
|-----|-------|-------|---|---|---|----|
| 496 | 81370 | Photo | 2 | 1 | 5 | 8 |
| 497 | 81370 | Photo | 1 | 1 | 5 | 2 |
| 498 | 81370 | Photo | 3 | 1 | 4 | 11 |
| 499 | 81370 | Photo | 2 | 1 | 4 | 4 |

| | Paid | Lifetime Post Total Reach | Lifetime Post Total Impressions | \ |
|-----|------|---------------------------|---------------------------------|---|
| 495 | 0.0 | 4684 | 7536 | |
| 496 | 0.0 | 3480 | 6229 | |
| 497 | 0.0 | 3778 | 7216 | |
| 498 | 0.0 | 4156 | 7564 | |
| 499 | NaN | 4188 | 7292 | |

| | Lifetime Engaged Users | Lifetime Post Consumers | \ |
|-----|------------------------|-------------------------|---|
| 495 | 733 | 708 | |
| 496 | 537 | 508 | |
| 497 | 625 | 572 | |
| 498 | 626 | 574 | |
| 499 | 564 | 524 | |

| | Lifetime Post Consumptions | \ |
|-----|----------------------------|---|
| 495 | 985 | |
| 496 | 687 | |
| 497 | 795 | |
| 498 | 832 | |
| 499 | 743 | |

| | Lifetime Post Impressions by people who have liked your Page | \ |
|-----|--|---|
| 495 | 4750 | |
| 496 | 3961 | |
| 497 | 4742 | |
| 498 | 4534 | |
| 499 | 3861 | |

| | Lifetime Post reach by people who like your Page | \ |
|-----|--|---|
| 495 | 2876 | |
| 496 | 2104 | |
| 497 | 2388 | |
| 498 | 2452 | |
| 499 | 2200 | |

| | Lifetime People who have liked your Page and engaged with your post | \ |
|-----|---|---|
| 495 | 392 | |
| 496 | 301 | |
| 497 | 363 | |
| 498 | 370 | |
| 499 | 316 | |

| | comment | like | share | Total Interactions |
|-----|---------|------|-------|--------------------|
| 495 | 5 | 53.0 | 26.0 | 84 |
| 496 | 0 | 53.0 | 22.0 | 75 |
| 497 | 4 | 93.0 | 18.0 | 115 |
| 498 | 7 | 91.0 | 38.0 | 136 |
| 499 | 0 | 91.0 | 28.0 | 119 |

```
[30]: df1 = df[['Type', 'Post Month', 'Post Hour']]
df1
```

```
[30]:
```

| | Type | Post Month | Post Hour |
|-----|--------|------------|-----------|
| 0 | Photo | 12 | 3 |
| 1 | Status | 12 | 10 |
| 2 | Photo | 12 | 3 |
| 3 | Photo | 12 | 10 |
| 4 | Photo | 12 | 3 |
| .. | ... | ... | ... |
| 495 | Photo | 1 | 2 |
| 496 | Photo | 1 | 8 |
| 497 | Photo | 1 | 2 |
| 498 | Photo | 1 | 11 |
| 499 | Photo | 1 | 4 |

[500 rows x 3 columns]

```
[32]: df2 = df[['Category', 'Paid', 'Post Weekday']]
df2
```

```
[32]:
```

| | Category | Paid | Post Weekday |
|-----|----------|------|--------------|
| 0 | 2 | 0.0 | 4 |
| 1 | 2 | 0.0 | 3 |
| 2 | 3 | 0.0 | 3 |
| 3 | 2 | 1.0 | 2 |
| 4 | 2 | 0.0 | 2 |
| .. | ... | ... | ... |
| 495 | 3 | 0.0 | 7 |
| 496 | 2 | 0.0 | 5 |
| 497 | 1 | 0.0 | 5 |
| 498 | 3 | 0.0 | 4 |
| 499 | 2 | NaN | 4 |

[500 rows x 3 columns]

```
[33]: df3= df[['like', 'share', 'comment']]
df3
```

```
[33]:      like  share  comment
0      79.0   17.0         4
1     130.0   29.0         5
2      66.0   14.0         0
3    1572.0  147.0        58
4     325.0   49.0        19
..      ...    ...      ...
495     53.0   26.0         5
496     53.0   22.0         0
497     93.0   18.0         4
498     91.0   38.0         7
499     91.0   28.0         0
```

[500 rows x 3 columns]

```
[35]: sample= df.loc[10:50,["Type","Post Month"]]
sample
```

```
[35]:      Type  Post Month
10  Status         12
11  Photo         12
12  Photo         12
13  Photo         12
14  Photo         12
15  Status         12
16  Photo         12
17  Photo         12
18  Status         12
19  Photo         12
20  Photo         12
21  Photo         12
22  Link          12
23  Photo         12
24  Status         12
25  Status         12
26  Status         12
27  Photo         12
28  Photo         12
29  Video         12
30  Photo         12
31  Photo         12
32  Photo         12
33  Photo         12
34  Photo         12
35  Photo         12
36  Photo         12
37  Photo         12
```

| | | |
|----|--------|----|
| 38 | Status | 12 |
| 39 | Photo | 12 |
| 40 | Status | 12 |
| 41 | Link | 12 |
| 42 | Photo | 12 |
| 43 | Link | 12 |
| 44 | Photo | 12 |
| 45 | Link | 12 |
| 46 | Status | 12 |
| 47 | Link | 12 |
| 48 | Photo | 12 |
| 49 | Link | 12 |
| 50 | Photo | 11 |

```
[39]: sample2= df.iloc[70:190,2:5]
      sample2
```

```
[39]:
```

| | Category | Post Month | Post Weekday |
|-----|----------|------------|--------------|
| 70 | 1 | 11 | 5 |
| 71 | 1 | 11 | 5 |
| 72 | 3 | 11 | 4 |
| 73 | 1 | 11 | 4 |
| 74 | 1 | 11 | 3 |
| .. | ... | ... | ... |
| 185 | 1 | 9 | 1 |
| 186 | 2 | 9 | 1 |
| 187 | 2 | 9 | 7 |
| 188 | 3 | 9 | 7 |
| 189 | 2 | 9 | 2 |

[120 rows x 3 columns]

```
[41]: merge =pd.concat([df1,df2,df3])
      merge
```

```
[41]:
```

| | Type | Post Month | Post Hour | Category | Paid | Post Weekday | like | share | \ |
|-----|--------|------------|-----------|----------|------|--------------|------|-------|---|
| 0 | Photo | 12.0 | 3.0 | NaN | NaN | NaN | NaN | NaN | |
| 1 | Status | 12.0 | 10.0 | NaN | NaN | NaN | NaN | NaN | |
| 2 | Photo | 12.0 | 3.0 | NaN | NaN | NaN | NaN | NaN | |
| 3 | Photo | 12.0 | 10.0 | NaN | NaN | NaN | NaN | NaN | |
| 4 | Photo | 12.0 | 3.0 | NaN | NaN | NaN | NaN | NaN | |
| .. | ... | ... | ... | ... | ... | ... | ... | ... | |
| 495 | NaN | NaN | NaN | NaN | NaN | NaN | 53.0 | 26.0 | |
| 496 | NaN | NaN | NaN | NaN | NaN | NaN | 53.0 | 22.0 | |
| 497 | NaN | NaN | NaN | NaN | NaN | NaN | 93.0 | 18.0 | |
| 498 | NaN | NaN | NaN | NaN | NaN | NaN | 91.0 | 38.0 | |
| 499 | NaN | NaN | NaN | NaN | NaN | NaN | 91.0 | 28.0 | |


```

      comment
0      NaN
1      NaN
2      NaN
3      NaN
4      NaN
..      ...
495     5.0
496     0.0
497     4.0
498     7.0
499     0.0

```

[1500 rows x 9 columns]

```

[43]: sorted= df.sort_values(by='like', ascending=False)
      sorted

```

```

[43]:   Page total likes   Type Category Post Month Post Weekday Post Hour \
244          130791  Photo         2         7         3         5
379          111620  Photo         3         4         1        14
349          117764  Photo         3         5         5        13
168          135428  Photo         1         9         3        10
3           139441  Photo         2        12         2        10
..          ...      ...      ...      ...      ...      ...
100          137020  Photo         1        10         4         9
417          104070  Photo         1         3         3        10
441           98195  Photo         1         3         5         4
21          138414  Photo         1        12         7        10
111          136736  Photo         1        10         6         8

```

```

      Paid Lifetime Post Total Reach Lifetime Post Total Impressions \
244    1.0          180480          319133
379    1.0          105632          147918
349    0.0           81856          124753
168    0.0           41984           68290
3      1.0           50128           87991
..      ...          ...          ...
100    1.0           1357           2453
417    0.0           1874           2474
441    1.0           1845           2670
21     0.0           1384           2467
111    0.0           1261           2158

```

```

      Lifetime Engaged Users Lifetime Post Consumers \
244          8072          4010

```

| | | |
|-----|------|------|
| 379 | 3984 | 2254 |
| 349 | 3000 | 1637 |
| 168 | 3370 | 2420 |
| 3 | 2211 | 790 |
| .. | ... | ... |
| 100 | 37 | 37 |
| 417 | 25 | 25 |
| 441 | 9 | 9 |
| 21 | 15 | 15 |
| 111 | 37 | 37 |

Lifetime Post Consumptions \

| | |
|-----|------|
| 244 | 6242 |
| 379 | 3391 |
| 349 | 2718 |
| 168 | 4074 |
| 3 | 1119 |
| .. | ... |
| 100 | 55 |
| 417 | 31 |
| 441 | 9 |
| 21 | 20 |
| 111 | 49 |

Lifetime Post Impressions by people who have liked your Page \

| | |
|-----|--------|
| 244 | 108752 |
| 379 | 48575 |
| 349 | 52477 |
| 168 | 34802 |
| 3 | 61027 |
| .. | ... |
| 100 | 2154 |
| 417 | 1483 |
| 441 | 1614 |
| 21 | 2196 |
| 111 | 1911 |

Lifetime Post reach by people who like your Page \

| | |
|-----|-------|
| 244 | 51456 |
| 379 | 27328 |
| 349 | 27392 |
| 168 | 20928 |
| 3 | 32048 |
| .. | ... |
| 100 | 1120 |
| 417 | 1062 |
| 441 | 1008 |

| | |
|-----|------|
| 21 | 1172 |
| 111 | 1077 |

| | Lifetime People who have liked your Page and engaged with your post \ |
|-----|---|
| 244 | 3316 |
| 379 | 1936 |
| 349 | 1756 |
| 168 | 2126 |
| 3 | 1386 |
| .. | ... |
| 100 | 32 |
| 417 | 15 |
| 441 | 9 |
| 21 | 15 |
| 111 | 33 |

| | comment | like | share | Total Interactions |
|-----|---------|--------|-------|--------------------|
| 244 | 372 | 5172.0 | 790.0 | 6334 |
| 379 | 51 | 1998.0 | 128.0 | 2177 |
| 349 | 45 | 1639.0 | 122.0 | 1806 |
| 168 | 144 | 1622.0 | 208.0 | 1974 |
| 3 | 58 | 1572.0 | 147.0 | 1777 |
| .. | ... | ... | ... | ... |
| 100 | 0 | 0.0 | 0.0 | 0 |
| 417 | 0 | 0.0 | 0.0 | 0 |
| 441 | 0 | 0.0 | 0.0 | 0 |
| 21 | 0 | 0.0 | 0.0 | 0 |
| 111 | 0 | NaN | NaN | 0 |

[500 rows x 19 columns]

```
[44]: sorted= df.sort_values(by='like', ascending=True)
sorted
```

| | Page total likes | Type | Category | Post Month | Post Weekday | Post Hour \ |
|-----|------------------|-------|----------|------------|--------------|-------------|
| 21 | 138414 | Photo | 1 | 12 | 7 | 10 |
| 441 | 98195 | Photo | 1 | 3 | 5 | 4 |
| 76 | 137893 | Photo | 1 | 11 | 3 | 2 |
| 417 | 104070 | Photo | 1 | 3 | 3 | 10 |
| 100 | 137020 | Photo | 1 | 10 | 4 | 9 |
| .. | ... | ... | ... | ... | ... | ... |
| 168 | 135428 | Photo | 1 | 9 | 3 | 10 |
| 349 | 117764 | Photo | 3 | 5 | 5 | 13 |
| 379 | 111620 | Photo | 3 | 4 | 1 | 14 |
| 244 | 130791 | Photo | 2 | 7 | 3 | 5 |
| 111 | 136736 | Photo | 1 | 10 | 6 | 8 |

| | Paid | Lifetime Post Total Reach | Lifetime Post Total Impressions \ |
|-----|------|---------------------------|-----------------------------------|
| 21 | 0.0 | 1384 | 2467 |
| 441 | 1.0 | 1845 | 2670 |
| 76 | 0.0 | 1228 | 2392 |
| 417 | 0.0 | 1874 | 2474 |
| 100 | 1.0 | 1357 | 2453 |
| .. | ... | ... | ... |
| 168 | 0.0 | 41984 | 68290 |
| 349 | 0.0 | 81856 | 124753 |
| 379 | 1.0 | 105632 | 147918 |
| 244 | 1.0 | 180480 | 319133 |
| 111 | 0.0 | 1261 | 2158 |

| | Lifetime Engaged Users | Lifetime Post Consumers \ |
|-----|------------------------|---------------------------|
| 21 | 15 | 15 |
| 441 | 9 | 9 |
| 76 | 17 | 17 |
| 417 | 25 | 25 |
| 100 | 37 | 37 |
| .. | ... | ... |
| 168 | 3370 | 2420 |
| 349 | 3000 | 1637 |
| 379 | 3984 | 2254 |
| 244 | 8072 | 4010 |
| 111 | 37 | 37 |

| | Lifetime Post Consumptions \ |
|-----|------------------------------|
| 21 | 20 |
| 441 | 9 |
| 76 | 19 |
| 417 | 31 |
| 100 | 55 |
| .. | ... |
| 168 | 4074 |
| 349 | 2718 |
| 379 | 3391 |
| 244 | 6242 |
| 111 | 49 |

| | Lifetime Post Impressions by people who have liked your Page \ |
|-----|--|
| 21 | 2196 |
| 441 | 1614 |
| 76 | 2392 |
| 417 | 1483 |
| 100 | 2154 |
| .. | ... |
| 168 | 34802 |

| | |
|-----|--------|
| 349 | 52477 |
| 379 | 48575 |
| 244 | 108752 |
| 111 | 1911 |

| | |
|-----|--|
| | Lifetime Post reach by people who like your Page \ |
| 21 | 1172 |
| 441 | 1008 |
| 76 | 1228 |
| 417 | 1062 |
| 100 | 1120 |
| .. | ... |
| 168 | 20928 |
| 349 | 27392 |
| 379 | 27328 |
| 244 | 51456 |
| 111 | 1077 |

| | |
|-----|---|
| | Lifetime People who have liked your Page and engaged with your post \ |
| 21 | 15 |
| 441 | 9 |
| 76 | 17 |
| 417 | 15 |
| 100 | 32 |
| .. | ... |
| 168 | 2126 |
| 349 | 1756 |
| 379 | 1936 |
| 244 | 3316 |
| 111 | 33 |

| | | | | |
|-----|---------|--------|-------|--------------------|
| | comment | like | share | Total Interactions |
| 21 | 0 | 0.0 | 0.0 | 0 |
| 441 | 0 | 0.0 | 0.0 | 0 |
| 76 | 0 | 0.0 | 0.0 | 0 |
| 417 | 0 | 0.0 | 0.0 | 0 |
| 100 | 0 | 0.0 | 0.0 | 0 |
| .. | ... | ... | ... | ... |
| 168 | 144 | 1622.0 | 208.0 | 1974 |
| 349 | 45 | 1639.0 | 122.0 | 1806 |
| 379 | 51 | 1998.0 | 128.0 | 2177 |
| 244 | 372 | 5172.0 | 790.0 | 6334 |
| 111 | 0 | NaN | NaN | 0 |

[500 rows x 19 columns]

```
[46]: transposed = df.head().transpose()
transposed
```

```
[46]:
```

| | 0 | 1 | 2 \ |
|--|--------|--------|--------|
| Page total likes | 139441 | 139441 | 139441 |
| Type | Photo | Status | Photo |
| Category | 2 | 2 | 3 |
| Post Month | 12 | 12 | 12 |
| Post Weekday | 4 | 3 | 3 |
| Post Hour | 3 | 10 | 3 |
| Paid | 0.0 | 0.0 | 0.0 |
| Lifetime Post Total Reach | 2752 | 10460 | 2413 |
| Lifetime Post Total Impressions | 5091 | 19057 | 4373 |
| Lifetime Engaged Users | 178 | 1457 | 177 |
| Lifetime Post Consumers | 109 | 1361 | 113 |
| Lifetime Post Consumptions | 159 | 1674 | 154 |
| Lifetime Post Impressions by people who have li... | 3078 | 11710 | 2812 |
| Lifetime Post reach by people who like your Page | 1640 | 6112 | 1503 |
| Lifetime People who have liked your Page and en... | 119 | 1108 | 132 |
| comment | 4 | 5 | 0 |
| like | 79.0 | 130.0 | 66.0 |
| share | 17.0 | 29.0 | 14.0 |
| Total Interactions | 100 | 164 | 80 |

| | 3 | 4 |
|--|--------|--------|
| Page total likes | 139441 | 139441 |
| Type | Photo | Photo |
| Category | 2 | 2 |
| Post Month | 12 | 12 |
| Post Weekday | 2 | 2 |
| Post Hour | 10 | 3 |
| Paid | 1.0 | 0.0 |
| Lifetime Post Total Reach | 50128 | 7244 |
| Lifetime Post Total Impressions | 87991 | 13594 |
| Lifetime Engaged Users | 2211 | 671 |
| Lifetime Post Consumers | 790 | 410 |
| Lifetime Post Consumptions | 1119 | 580 |
| Lifetime Post Impressions by people who have li... | 61027 | 6228 |
| Lifetime Post reach by people who like your Page | 32048 | 3200 |
| Lifetime People who have liked your Page and en... | 1386 | 396 |
| comment | 58 | 19 |
| like | 1572.0 | 325.0 |
| share | 147.0 | 49.0 |
| Total Interactions | 1777 | 393 |

```
[47]: df.shape
```

```
[47]: (500, 19)
```

```
[49]: grouped = df.groupby(['Type', 'Category']).mean()
```

```
[50]: reshaped = grouped.unstack()
```

```
[51]: reshaped.head()
```

```
[51]:
```

| | Page total likes | | | Post Month | | \ | |
|----------|------------------|---------------|-----------|------------|----------|---|--|
| Category | 1 | 2 | 3 | 1 | 2 | | |
| Type | | | | | | | |
| Link | 117984.150000 | 98195.000000 | 102112.00 | 6.950000 | 3.000000 | | |
| Photo | 123155.264865 | 127099.967033 | 118487.04 | 7.102703 | 7.626374 | | |
| Status | 119619.333333 | 133177.947368 | 137374.25 | 6.666667 | 9.052632 | | |
| Video | 135014.857143 | NaN | NaN | 9.571429 | NaN | | |

| | Post Weekday | | | Post Hour | | ... | comment | \ | |
|----------|--------------|----------|----------|-----------|----------|-----|----------|---|--|
| Category | 3 | 1 | 2 | 3 | 1 | ... | 3 | | |
| Type | | | | | | ... | | | |
| Link | 3.00 | 4.350000 | 6.000000 | 1.000000 | 5.850000 | ... | 2.000000 | | |
| Photo | 5.94 | 4.302703 | 3.802198 | 4.053333 | 8.864865 | ... | 6.913333 | | |
| Status | 11.00 | 3.333333 | 4.789474 | 3.500000 | 9.666667 | ... | 2.750000 | | |
| Video | NaN | 3.571429 | NaN | NaN | 8.714286 | ... | NaN | | |

| | like | | | share | | | \ | |
|----------|------------|------------|------------|-----------|-----------|-----------|---|--|
| Category | 1 | 2 | 3 | 1 | 2 | 3 | | |
| Type | | | | | | | | |
| Link | 75.650000 | 32.000000 | 68.000000 | 12.700000 | 15.000000 | 15.000000 | | |
| Photo | 126.000000 | 235.857143 | 219.753333 | 17.961326 | 35.505495 | 33.193333 | | |
| Status | 136.333333 | 182.552632 | 151.500000 | 27.000000 | 32.105263 | 28.250000 | | |
| Video | 231.428571 | NaN | NaN | 52.142857 | NaN | NaN | | |

| | Total Interactions | | |
|----------|--------------------|------------|--------|
| Category | 1 | 2 | 3 |
| Type | | | |
| Link | 91.250000 | 49.000000 | 85.00 |
| Photo | 148.789189 | 283.054945 | 259.86 |
| Status | 167.666667 | 224.578947 | 182.50 |
| Video | 295.857143 | NaN | NaN |

```
[4 rows x 51 columns]
```

```
[ ]: df.shape
```

```
[ ]:
```