

```
In [2]: import pandas as pd
import numpy as np
df1 = pd.read_csv("comments.csv")
df1.head()
```

```
Out[2]:
```

	Name	People_URL	Page_Or_Person	Post_U
0	Andreas Kenotaph	https://m.facebook.com/andreas.inkmann	Person	https://m.facebook.com/story.pl story_fbid=3
1	Top fan\nLuca Maccarone	https://m.facebook.com/luca.maccarone.7	Person	https://m.facebook.com/story.pl story_fbid=3
2	Lia Silva	https://m.facebook.com/alma.lilly.aho	Person	https://m.facebook.com/story.pl story_fbid=3
3	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.pl story_fbid=3
4	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.pl story_fbid=3

```
In [46]: df2=df1.drop(['People_URL', 'Post_URL', 'Comment'], axis=1)
df2.head()
```

```
Out[46]:
```

	Name	Page_Or_Person
0	Andreas Kenotaph	Person
1	Top fan\nLuca Maccarone	Person
2	Lia Silva	Person
3	Author\nShankra Festival	Page
4	Author\nShankra Festival	Page

```
In [47]: len(df2.Name.unique())
```

```
Out[47]: 604
```

```
In [48]: df2.max()
```

```
Out[48]: Name          黄人超
Page_Or_Person    Person
```

dtype: object

```
In [49]: n = 6
         df2['Name'].value_counts()[0:n].index.tolist()
```

```
Out[49]: ['Author\nShankra Festival',
          'Top fan\nSimo Offlabelcrew Enomys',
          'Alain Lafarie',
          'Jacob Kuba Friday',
          'Martinez Bickey',
          'Kevin Esbensen']
```

```
In [11]: import pandas as pd
         import numpy as np
         df3 = pd.read_csv("likes.csv")
         df3.head()
```

```
Out[11]:
```

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or
0	Aremacs Sud-Est	https://m.facebook.com/AremacsSudEst/	Like	
1	Psytranceworldwidemagazine	https://m.facebook.com/psytranceworldwidemagaz...	Love	
2	Vale DeKi	https://m.facebook.com/vale.deki.5	Like	
3	André Novais	https://m.facebook.com/andre.novais.7777	Like	
4	Luca Luca	https://m.facebook.com/profile.php	Like	

```
In [79]: df4=df3.rename({'Reactions_By': 'Name'}, axis=1)
         df4.head()
```

```
Out[79]:
```

	Name	Reactions_By_URL	Reactions_What	Page_Or
0	Aremacs Sud-Est	https://m.facebook.com/AremacsSudEst/	Like	
1	Psytranceworldwidemagazine	https://m.facebook.com/psytranceworldwidemagaz...	Love	
2	Vale DeKi	https://m.facebook.com/vale.deki.5	Like	
3	André Novais	https://m.facebook.com/andre.novais.7777	Like	
4	Luca Luca	https://m.facebook.com/profile.php	Like	

```
In [80]: df5=df4.drop(['Reactions_By_URL', 'Post_URL'], axis=1)
         df5.head()
```

```
Out[80]:
```

	Name	Reactions_What	Page_Or_Person
--	------	----------------	----------------

	Name	Reactions_What	Page_Or_Person
0	Aremacs Sud-Est	Like	Page
1	Psytranceworldwidemagazine	Love	Page
2	Vale DeKi	Like	Person
3	André Novais	Like	Person
4	Luca Luca	Like	Person

```
In [12]: df3[df3['Reactions_What'].str.match('Like')]
```

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or_Person
0	Aremacs Sud-Est	https://m.facebook.com/AremacsSudEst/	Like	Page
2	Vale DeKi	https://m.facebook.com/vale.deki.5	Like	Person
3	André Novais	https://m.facebook.com/andre.novais.7777	Like	Person
4	Luca Luca	https://m.facebook.com/profile.php	Like	Person
5	Xrhstos Zagkas	https://m.facebook.com/xrhstos.zagkas.9	Like	Person
...
2670	Julijana Djokic	https://m.facebook.com/julijana.djokic.50	Like	Person
2671	Agostinho Tito	https://m.facebook.com/agostinho.tito.75	Like	Person
2672	Corine Maurel	https://m.facebook.com/corine.maurel.988	Like	Person
2673	Татьяна Палий	https://m.facebook.com/profile.php	Like	Person
2674	Shachar Pich	https://m.facebook.com/profile.php	Like	Person

2186 rows × 5 columns



```
In [13]: df4= df3[df3['Page_Or_Person'].str.match('Page')]
```

```
In [14]: df4[df4['Reactions_What'].str.match('Like')]
```

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or_Person
0	Aremacs Sud-Est	https://m.facebook.com/AremacsSudEst/	Like	Page

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or_Person
295	Dj Kia Goa	https://m.facebook.com/KIAGOA/	Like	Page
296	PSY Paradise	https://m.facebook.com/psyparadisefiction/	Like	Page
390	Psymsara	https://m.facebook.com/psymsara/	Like	Page
391	PSY Paradise	https://m.facebook.com/psyparadisefiction/	Like	Page
911	Chidima	https://m.facebook.com/chidimamusic/	Like	Page
1646	Ipnosys	https://m.facebook.com/ipnosys/	Like	Page
1925	Shankra Festival	https://m.facebook.com/shankrafestival/	Like	Page
2024	Psy Trance Events Worldwide	https://m.facebook.com/PsyTranceEventsWorldwide/	Like	Page
2030	VisitMoesano	https://m.facebook.com/ilmoesano/	Like	Page
2031	Ankti	https://m.facebook.com/anktimuzika/	Like	Page
2213	Psy Trance Events Portugal	https://m.facebook.com/PsyTranceEventsPortugal/	Like	Page
2214	Promo - Dj - Event	https://m.facebook.com/promodjevent/	Like	Page
2215	Psy Trance Events Worldwide	https://m.facebook.com/PsyTranceEventsWorldwide/	Like	Page
2217	Party Accessory	https://m.facebook.com/Party.Accessory/	Like	Page
2220	Gabriel Le Mar	https://m.facebook.com/gabriellemarofficial/	Like	Page
2221	Psy Trance Events Europe	https://m.facebook.com/PsyTranceEventsEurope/	Like	Page
2222	Psy Dare	https://m.facebook.com/PsyDare/	Like	Page
2223	Silent Sphere	https://m.facebook.com/SilentSphereMusic/	Like	Page
2304	HADRA SHOP	https://m.facebook.com/shop.hadra/	Like	Page
2306	Flowings Artist e- Management	https://m.facebook.com/flowingsm/	Like	Page

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or_Person
2308	Eni Matek	https://m.facebook.com/djEnimatek/	Like	Page
2309	Nameless In Springe	https://m.facebook.com/bybandit.de/	Like	Page
2310	Changa Children	https://m.facebook.com/changachildren/	Like	Page
2311	DJ Ricky Marchesi	https://m.facebook.com/DJ-Ricky-Marchesi-10439...	Like	Page
2314	Party Accessory	https://m.facebook.com/Party.Accessory/	Like	Page
2315	Apollon	https://m.facebook.com/Apollonpsytrance/	Like	Page
2316	SENTINEL	https://m.facebook.com/Sentinel.OfficialSite/	Like	Page
2318	Goa Destination	https://m.facebook.com/goadestination/	Like	Page
2319	Astrominds	https://m.facebook.com/astromindsmusic/	Like	Page
2320	Ipnosys	https://m.facebook.com/ipnosys/	Like	Page
2321	Rytork	https://m.facebook.com/rytork/	Like	Page
2322	Psypirate	https://m.facebook.com/Psypirate/	Like	Page
2325	Digital Fracass	https://m.facebook.com/digitalfracass/	Like	Page
2326	Housebracker	https://m.facebook.com/Housebracker/	Like	Page
2327	Scents of Music	https://m.facebook.com/Sylvia.scentsofmusic/	Like	Page
2328	Psy Dare	https://m.facebook.com/PsyDare/	Like	Page
2329	DjSat	https://m.facebook.com/WidmerJulien/	Like	Page
2489	Resistance goa valley	https://m.facebook.com/ResistanceGoaValley/	Like	Page
2490	Muros de belem para	https://m.facebook.com/Muros-de-belem-para-149...	Like	Page
2491	Z4Arts	https://m.facebook.com/Z4ARTS/	Like	Page
2493	Weed psy 420	https://m.facebook.com/CLICKADDICT420/	Like	Page

	Reactions_By	Reactions_By_URL	Reactions_What	Page_Or_Person
2494	Ipnosys	https://m.facebook.com/ipnosys/	Like	Page
2495	IMZX DJ	https://m.facebook.com/IMZXDJ/	Like	Page
2496	Dodo	https://m.facebook.com/dododisaster/	Like	Page
2497	Psy Dare	https://m.facebook.com/PsyDare/	Like	Page
2584	Dr. Ginger	https://m.facebook.com/drgingerofficial/	Like	Page
2585	Psychedevelopment	https://m.facebook.com/Psychedevolution/	Like	Page
2586	East Wolf	https://m.facebook.com/8HaMagalKarmiel/	Like	Page
2587	Psy Mode	https://m.facebook.com/NelsonRodrigues13/	Like	Page
2588	PSY Society-Azores	https://m.facebook.com/PsySociety/	Like	Page
2589	Microspace Music	https://m.facebook.com/assafms/	Like	Page
2590	Apollon	https://m.facebook.com/Apollonpsytrance/	Like	Page
2592	IMZX DJ	https://m.facebook.com/IMZXDJ/	Like	Page
2594	Auditory Relaxation	https://m.facebook.com/AuditoryRelaxation/	Like	Page
2595	Silent Sphere	https://m.facebook.com/SilentSphereMusic/	Like	Page
2596	HD Beauty Boutique	https://m.facebook.com/hdbeautyboutique/	Like	Page



```
In [15]: n = 6
df4['Reactions_By'].value_counts()[n].index.tolist()
```

```
Out[15]: ['Party Accessory', 'Apollon', 'SENTINEL', 'Ipnosys', 'IMZX DJ', 'Psy Dare']
```

```
In [16]: df4.Reactions_By = df4.Reactions_By.apply(lambda x:x.strip())
Reactions_By_stats = df4.groupby('Reactions_By')['Reactions_By'].agg('count').sort_valu
Reactions_By_stats
```

C:\ProgramData\Anaconda3\lib\site-packages\pandas\core\generic.py:5168: SettingWithCopyWarning:

A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_

```
guide/indexing.html#returning-a-view-versus-a-copy
self[name] = value
```

```
Out[16]: Reactions_By
IMZX DJ          3
Apollon          3
Ipnosys          3
Party Accessory  3
Psy Dare         3
..
Muros de belem para 1
Microspace Music    1
M.Solez             1
Lichtblick Arlesheim treffen 1
AUManoid            1
Name: Reactions_By, Length: 64, dtype: int64
```

```
In [81]: import pandas as pd
import numpy as np
df6 = pd.read_csv("Shares.csv")
df6.head()
```

```
Out[81]:
```

	Shares_By	Shares_By_URL	Page_Or_Person	Total_Sh
0	Eric Keriguy	https://m.facebook.com/eric.keriguy.7	Person	56 sha
1	Psytranceworldwidemagazine	https://m.facebook.com/psytranceworldwidemagaz...	Page	56 sha
2	Dj Kalanio	https://m.facebook.com/kalanio44/	Page	56 sha
3	Silvia Sey	https://m.facebook.com/silvia.mandelli.73	Person	56 sha
4	Giovanni Ricciardi	https://m.facebook.com/giovanniricciardijunior	Person	56 sha

```
In [83]: df7 = df6.rename({'Shares_By': 'Name'}, axis=1)
df7.head()
```

```
Out[83]:
```

	Name	Shares_By_URL	Page_Or_Person	Total_Sh
0	Eric Keriguy	https://m.facebook.com/eric.keriguy.7	Person	56 sha
1	Psytranceworldwidemagazine	https://m.facebook.com/psytranceworldwidemagaz...	Page	56 sha
2	Dj Kalanio	https://m.facebook.com/kalanio44/	Page	56 sha
3	Silvia Sey	https://m.facebook.com/silvia.mandelli.73	Person	56 sha
4	Giovanni Ricciardi	https://m.facebook.com/giovanniricciardijunior	Person	56 sha

```
In [84]: df8=df7.drop(['Shares_By_URL', 'Post_URL'], axis=1)
```

```
df8.head()
```

Out[84]:

	Name	Page_Or_Person	Total_Share
0	Eric Keriguy	Person	56 shares
1	Psytranceworldwidemagazine	Page	56 shares
2	Dj Kalanio	Page	56 shares
3	Silvia Sey	Person	56 shares
4	Giovanni Ricciardi	Person	56 shares

In [18]:

```
df5[df5['Page_Or_Person'].str.match('Page')]
```

Out[18]:

	Shares_By	Shares_By_URL	Page_Or_Person	Total
1	Psytranceworldwidemagazine	https://m.facebook.com/psytranceworldwidemagaz...	Page	56
2	Dj Kalanio	https://m.facebook.com/kalanio44/	Page	56
10	HP's Musik Blog CH	https://m.facebook.com/HPsMusikBlogCH/	Page	56
13	Earth is our Home	https://m.facebook.com/1earth1energy/	Page	56
55	NANIROSSI -artisti di strada...	https://m.facebook.com/NANIROSSI.STREETSHOW/	Page	79
65	NEW FORUM FRANCE Hippie...	https://m.facebook.com/NEW-FORUM-FRANCE-Hippie...	Page	79
98	Psy Trance Events Switzerland	https://m.facebook.com/PsyTranceEventsSwitzerl...	Page	429
112	Music Universe	https://m.facebook.com/Music-Universe-18636557...	Page	429
123	TrancEuphoria	https://m.facebook.com/Geoffreygeo69MusicHD/	Page	41
136	synthetik chaos	https://m.facebook.com/synthetikchaos/	Page	92
146	Stagebox	https://m.facebook.com/stageboxCH/	Page	92
151	サウル Ak Sauru	https://m.facebook.com/604Sauru/	Page	92
152	Goa Tribe Trance	https://m.facebook.com/realidadalterna3141604/	Page	92
153	Trance Addiction /Blr	https://m.facebook.com/TranceSpoter/	Page	92
169	Prototribe Psytrance	https://m.facebook.com/CreacRec/	Page	937

	Shares_By	Shares_By_URL	Page_Or_Person	Total_
177	synthetik chaos	https://m.facebook.com/synthetikchaos/	Page	937
186	ॐ Psy Namah	https://m.facebook.com/lovelordpsy/	Page	364
195	Psyloforia Media - Psytrance News	https://m.facebook.com/Psyloforia/	Page	364
199	JOY Entertainment	https://m.facebook.com/J.E.musicprovision/	Page	364
212	PSY Society- Azores	https://m.facebook.com/PsySoceity/	Page	127
231	DMT FM - Psytrance Radio...	https://m.facebook.com/DMTFmStudio/	Page	127
232	Deneva Planet Sound studio&Lab.	https://m.facebook.com/DenevaPlanetSoundstudio...	Page	127



```
In [19]: n = 2
df5['Total_Share'].value_counts()[ :n].index.tolist()
```

```
Out[19]: ['937 shares', '127 shares']
```

```
In [20]: df5.Total_Share = df5.Total_Share.apply(lambda x:x.strip())
Total_Share_stats = df5.groupby('Total_Share')['Total_Share'].agg('count').sort_values(
Total_Share_stats
```

```
Out[20]: Total_Share
937 shares    30
127 shares    29
364 shares    28
92 shares     25
57 shares     22
56 shares     21
429 shares    21
79 shares     15
41 shares     12
32 shares     12
8 shares       7
9 shares       5
13 shares      4
12 shares      4
4 shares       3
7 shares       1
5 shares       1
3 shares       1
Name: Total_Share, dtype: int64
```

```
In [37]: df9=pd.merge(df2,df5,how="inner")
```

```
In [38]: df6.head()
```

```
Out[38]:
```

	Name	People_URL	Page_Or_Person	Post_UR
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	Name	People_URL	Page_Or_Person	Post_UR
0	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.php story_fbid=30
1	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.php story_fbid=30
2	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.php story_fbid=30
3	Author\nShankra Festival	https://m.facebook.com/shankrafestival/	Page	https://m.facebook.com/story.php story_fbid=30
4	Sette AFK	https://m.facebook.com/SetteAFK/	Page	https://m.facebook.com/story.php story_fbid=33



```
In [39]: df6.shape
```

Out[39]: (146, 8)

```
In [85]: df9=pd.merge(df2,df5,on="Name",how="inner")
```

```
In [88]: df9.head(40)
```

Out[88]:

	Name	Page_Or_Person_x	Reactions_What	Page_Or_Person_y
0	Lia Silva	Person	Love	Person
1	Jacob Kuba Friday	Person	Love	Person
2	Jacob Kuba Friday	Person	Love	Person
3	Jacob Kuba Friday	Person	Love	Person
4	Jacob Kuba Friday	Person	Love	Person
5	Jacob Kuba Friday	Person	Love	Person
6	Mahdy Ibrahim	Person	Love	Person
7	Pawel Wieloch	Person	Like	Person
8	John Löfvendahl	Person	Care	Person
9	Aáron P Q	Person	Like	Person
10	Aáron P Q	Person	Like	Person
11	Aáron P Q	Person	Like	Person
12	Aáron P Q	Person	Like	Person

	Name	Page_Or_Person_x	Reactions_What	Page_Or_Person_y
13	Aáron P Q	Person	Like	Person
14	Aáron P Q	Person	Like	Person
15	Alfonso Verde Cienfuegos	Person	Love	Person
16	Manuel Nava	Person	Like	Person
17	Manuel Nava	Person	Like	Person
18	Paul Kieliseck	Person	Like	Person
19	Paul Kieliseck	Person	Love	Person
20	Paul Kieliseck	Person	Care	Person
21	Paul Kieliseck	Person	Like	Person
22	Paul Kieliseck	Person	Love	Person
23	Paul Kieliseck	Person	Care	Person
24	Anthony Duflos	Person	Like	Person
25	Anthony Duflos	Person	Love	Person
26	Cardoso Teresa	Person	Love	Person
27	Cardoso Teresa	Person	Love	Person
28	Cardoso Teresa	Person	Like	Person
29	Sophia Awen	Person	Like	Person
30	Luc Wyn	Person	WOW	Person
31	He Art	Person	Love	Person
32	Riki Ben Ezra	Person	Like	Person
33	Riki Ben Ezra	Person	Like	Person
34	Alterd Healing	Person	Love	Person
35	Spikeme Mike Goa	Person	Love	Person
36	Véeu Henrique	Person	Love	Person
37	Véeu Henrique	Person	Love	Person
38	Véeu Henrique	Person	Love	Person
39	Véeu Henrique	Person	Love	Person

In [87]: `df9.shape`

Out[87]: (140, 4)

In [93]: `df10=pd.merge(df8,df9,on="Name",how="inner")`
`df10.head(40)`

Out[93]:

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_C
--	------	----------------	-------------	------------------	----------------	--------

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_C
0	Psytranceworldwidemagazine	Page	56 shares	Page	Love	
1	Il Kahuixx	Person	56 shares	Person	Like	
2	Il Kahuixx	Person	56 shares	Person	Like	
3	Il Kahuixx	Person	56 shares	Person	Love	
4	Il Kahuixx	Person	56 shares	Person	Love	
5	Il Kahuixx	Person	56 shares	Person	Like	
6	Il Kahuixx	Person	56 shares	Person	Like	
7	Il Kahuixx	Person	56 shares	Person	Love	
8	Il Kahuixx	Person	56 shares	Person	Love	
9	Il Kahuixx	Person	57 shares	Person	Like	
10	Il Kahuixx	Person	57 shares	Person	Like	
11	Il Kahuixx	Person	57 shares	Person	Love	
12	Il Kahuixx	Person	57 shares	Person	Love	
13	Il Kahuixx	Person	57 shares	Person	Like	
14	Il Kahuixx	Person	57 shares	Person	Like	
15	Il Kahuixx	Person	57 shares	Person	Love	
16	Il Kahuixx	Person	57 shares	Person	Love	
17	Il Kahuixx	Person	41 shares	Person	Like	
18	Il Kahuixx	Person	41 shares	Person	Like	
19	Il Kahuixx	Person	41 shares	Person	Love	
20	Il Kahuixx	Person	41 shares	Person	Love	
21	Il Kahuixx	Person	41 shares	Person	Like	
22	Il Kahuixx	Person	41 shares	Person	Like	
23	Il Kahuixx	Person	41 shares	Person	Love	
24	Il Kahuixx	Person	41 shares	Person	Love	
25	Roman Kornas	Person	79 shares	Person	Like	
26	Roman Kornas	Person	79 shares	Person	Like	
27	Roman Kornas	Person	429 shares	Person	Like	
28	Roman Kornas	Person	429 shares	Person	Like	
29	Paul Kieliseck	Person	12 shares	Person	Like	
30	Paul Kieliseck	Person	12 shares	Person	Love	
31	Paul Kieliseck	Person	12 shares	Person	Care	
32	Paul Kieliseck	Person	12 shares	Person	Like	

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_C
33	Paul Kieliseck	Person	12 shares	Person	Love	
34	Paul Kieliseck	Person	12 shares	Person	Care	
35	Spikeme Mike Goa	Person	429 shares	Person	Love	
36	Miraculix Kocht Zaubertrank	Person	127 shares	Person	Love	
37	Miraculix Kocht Zaubertrank	Person	127 shares	Person	Love	



```
In [96]: df10[df10['Reactions_What'].str.match('Like')]
```

Out[96]:

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_Or_Person_y
1	Il Kahuixx	Person	56 shares	Person	Like	Person
2	Il Kahuixx	Person	56 shares	Person	Like	Person
5	Il Kahuixx	Person	56 shares	Person	Like	Person
6	Il Kahuixx	Person	56 shares	Person	Like	Person
9	Il Kahuixx	Person	57 shares	Person	Like	Person
10	Il Kahuixx	Person	57 shares	Person	Like	Person
13	Il Kahuixx	Person	57 shares	Person	Like	Person
14	Il Kahuixx	Person	57 shares	Person	Like	Person
17	Il Kahuixx	Person	41 shares	Person	Like	Person
18	Il Kahuixx	Person	41 shares	Person	Like	Person
21	Il Kahuixx	Person	41 shares	Person	Like	Person
22	Il Kahuixx	Person	41 shares	Person	Like	Person
25	Roman Kornas	Person	79 shares	Person	Like	Person
26	Roman Kornas	Person	79 shares	Person	Like	Person
27	Roman Kornas	Person	429 shares	Person	Like	Person
28	Roman Kornas	Person	429 shares	Person	Like	Person
29	Paul Kieliseck	Person	12 shares	Person	Like	Person
32	Paul Kieliseck	Person	12 shares	Person	Like	Person

```
In [97]: df10[df10['Page_Or_Person'].str.match('Page')]
```

Out[97]:

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_Or
--	------	----------------	-------------	------------------	----------------	---------

	Name	Page_Or_Person	Total_Share	Page_Or_Person_x	Reactions_What	Page_Or
0	Psytranceworldwidemagazine	Page	56 shares	Page	Love	



In []: