

# Roll no. 33140

# Batch L9

# Assignment 5 (1): Perform sub-setting, melting and casting of dataset (Facebook).

Type 'demo()' for some demos, 'help()' for on-line help, or

'help.start()' for an HTML browser interface to help.

Type 'q()' to quit R.

[Workspace loaded from G:/College/SL6/Assignment5/.RData]

```
> setwd("G:/College/SL6/Assignment5/")
```

```
> # install.packages("readxl")
```

```
> library("readxl")
```

```
> dataset_Facebook = read.csv2("G:/College/SL-VI DataSets/dataset_Facebook.csv",header = T, sep = ';')
```

```
> View(dataset_Facebook)
```

```
> dataset_Facebook
```

	Page.total.likes	Type	Category	Post.Month	Post.Weekday	Post.Hour	Paid	Lifetime.Post.Total.Reach
1	139441	Photo	2	12	4	3	0	2752
2	139441	Status	2	12	3	10	0	10460
3	139441	Photo	3	12	3	3	0	2413
4	139441	Photo	2	12	2	10	1	50128
5	139441	Photo	2	12	2	3	0	7244
6	139441	Status	2	12	1	9	0	10472
7	139441	Photo	3	12	1	3	1	11692
8	139441	Photo	3	12	7	9	1	13720
9	139441	Status	2	12	7	3	0	11844
10	139441	Photo	3	12	6	10	0	4694
11	139441	Status	2	12	5	10	0	21744
12	139441	Photo	2	12	5	10	0	3112
13	139441	Photo	2	12	5	10	0	2847
14	139441	Photo	2	12	5	3	0	2549
15	138414	Photo	2	12	4	5	1	22784
16	138414	Status	2	12	3	10	0	10060
17	138414	Photo	3	12	3	3	0	1722
18	138414	Photo	1	12	2	12	1	53264
19	138414	Status	3	12	2	3	0	3930
20	138414	Photo	3	12	1	11	0	1591
21	138414	Photo	2	12	1	3	0	2848
22	138414	Photo	1	12	7	10	0	1384
23	138414	Link	1	12	7	10	0	3454

24	138414 Photo	3	12	7	3	0	2723
25	138414 Status	2	12	6	10	0	8488
26	138458 Status	2	12	6	3	0	8284
27	138458 Status	2	12	5	11	0	19552
28	138458 Photo	3	12	5	3	0	2478
29	138895 Photo	2	12	5	3	0	9560
30	138895 Video	1	12	4	11	1	36208
31	138895 Photo	2	12	4	2	0	4940
32	138895 Photo	2	12	3	10	0	1683
33	138895 Photo	3	12	3	3	0	5280
34	138895 Photo	3	12	2	9	0	3002
35	138895 Photo	1	12	2	3	0	3766
36	138895 Photo	2	12	1	11	0	4512
37	138895 Photo	3	12	1	3	0	2690
38	138895 Photo	1	12	7	10	1	19800
39	138895 Status	2	12	7	9	0	17576
40	138895 Photo	1	12	7	3	0	3290
41	138895 Status	2	12	6	11	0	13280
42	138895 Link	1	12	6	3	1	18480
43	138353 Photo	1	12	5	10	0	7268
44	138353 Link	1	12	5	3	1	2645
45	138353 Photo	1	12	4	11	0	4284
46	138353 Link	1	12	4	3	1	7968
47	138353 Status	1	12	3	11	0	16576
48	138353 Link	1	12	3	2	0	1925
49	138353 Photo	1	12	2	11	0	3786
50	138353 Link	1	12	2	2	0	1536
51	138353 Photo	2	11	1	9	0	1728
52	138329 Photo	1	11	1	3	1	25248

Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions

1	5091	178	109	159
2	19057	1457	1361	1674
3	4373	177	113	154
4	87991	2211	790	1119
5	13594	671	410	580
6	20849	1191	1073	1389
7	19479	481	265	364
8	24137	537	232	305
9	22538	1530	1407	1692
10	8668	280	183	250
11	42334	4258	4100	4540

12	5590	208	127	145
13	5133	193	115	133
14	4896	249	134	168
15	39941	887	337	417
16	19680	1264	1209	1425
17	2981	163	123	148
18	111785	1706	1103	1655
19	7509	130	86	112
20	2825	121	88	111
21	5066	200	142	184
22	2467	15	15	20
23	6853	118	104	130
24	4888	176	118	143
25	15294	1341	1270	1489
26	15104	1521	1462	1711
27	34143	2806	2531	3420
28	4306	212	124	149
29	18264	973	559	885
30	61262	1141	1068	1728
31	9390	385	306	501
32	2929	192	171	221
33	9578	368	237	345
34	5318	268	185	247
35	7149	298	260	431
36	7808	423	284	431
37	4628	252	168	226
38	28663	479	424	805
39	33058	5352	5202	6547
40	6085	306	284	402
41	24198	2055	1912	2720
42	28438	517	366	460
43	13989	2087	2079	12074
44	4270	134	109	170
45	8387	355	316	513
46	13023	206	158	223
47	30612	3572	3464	4802
48	3481	97	83	126
49	7329	338	283	450
50	3094	84	76	99
51	3155	108	65	95
52	40125	726	467	863

Lifetime.Post.Impressions.by.people.who.have.liked.your.Page Lifetime.Post.reach.by.people.who.like.your.Page

1	3078	1640
2	11710	6112
3	2812	1503
4	61027	32048
5	6228	3200
6	16034	7852
7	15432	9328
8	19728	11056
9	15220	7912
10	4309	2324
11	37849	18952
12	3887	2174
13	3779	2072
14	3631	1917
15	34415	19312
16	17272	8548
17	1868	1050
18	92512	39776
19	5009	2410
20	2116	1161
21	3561	1963
22	2196	1172
23	6282	3100
24	2964	1621
25	9684	5244
26	10266	5372
27	17748	9824
28	2612	1443
29	9217	4748
30	30131	14112
31	5860	2930
32	1585	858
33	4480	2422
34	3039	1676
35	5782	2938
36	5183	2954
37	3052	1727
38	5187	2752
39	23135	11792
40	4986	2584

41	17627	9344
42	12078	6752
43	13544	7096
44	2330	1377
45	7283	3634
46	6734	3492
47	24363	12888
48	2307	1180
49	6336	3216
50	2903	1407
51	2313	1232
52	16132	8608

Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comment like share Total.Interactions

1	119	4	79	17	100
2	1108	5	130	29	164
3	132	0	66	14	80
4	1386	58	1572	147	1777
5	396	19	325	49	393
6	1016	1	152	33	186
7	379	3	249	27	279
8	422	0	325	14	339
9	1250	0	161	31	192
10	199	3	113	26	142
11	3798	0	233	19	252
12	165	0	88	18	106
13	152	0	90	14	104
14	183	5	137	10	152
15	684	2	577	20	599
16	1162	4	86	18	108
17	123	2	40	12	54
18	1307	15	678	20	713
19	101	4	54	17	75
20	100	0	34	8	42
21	157	3	66	12	81
22	15	0	0	0	0
23	106	0	16	2	18
24	143	0	72	24	96
25	995	3	99	19	121
26	1200	0	88	18	106
27	1779	10	412	72	494
28	166	0	100	17	117

29	621	36	523	63	622
30	559	18	143	13	174
31	273	33	107	22	162
32	131	1	27	11	39
33	268	2	155	47	204
34	194	4	98	23	125
35	244	2	56	17	75
36	316	6	172	21	199
37	199	0	96	17	113
38	248	16	76	8	100
39	4104	11	227	31	269
40	247	1	44	14	59
41	1716	7	216	39	262
42	319	6	187	18	211
43	1975	7	26	3	36
44	101	7	29	10	46
45	291	0	47	11	58
46	138	4	57	10	71
47	3014	4	174	36	214
48	77	6	18	8	32
49	280	0	77	15	92
50	76	1	12	1	14
51	77	1	48	9	58
52	451	24	285	28	337

[ reached 'max' / getOption("max.print") -- omitted 448 rows ]

> #subsetting

> v1 <- dataset\_Facebook[c(10:21),c(2,6:7)]

> v1

	Type	Post.Hour	Paid
10	Photo	10	0
11	Status	10	0
12	Photo	10	0
13	Photo	10	0
14	Photo	3	0
15	Photo	5	1
16	Status	10	0
17	Photo	3	0
18	Photo	12	1
19	Status	3	0

20 Photo 11 0

21 Photo 3 0

```
> v2 <- subset(dataset_Facebook,comment>15)
```

```
> # View(v2)
```

```
> v2
```

	Page.total.likes	Type	Category	Post.Month	Post.Weekday	Post.Hour	Paid	Lifetime.Post.Total.Reach
4	139441	Photo	2	12	2	10	1	50128
5	139441	Photo	2	12	2	3	0	7244
29	138895	Photo	2	12	5	3	0	9560
30	138895	Video	1	12	4	11	1	36208
31	138895	Photo	2	12	4	2	0	4940
38	138895	Photo	1	12	7	10	1	19800
52	138329	Photo	1	11	1	3	1	25248
66	138185	Photo	1	11	1	3	0	3416
68	138185	Photo	1	11	7	3	1	53456
72	137893	Video	1	11	5	3	1	100768
76	137893	Photo	1	11	3	2	1	37376
82	137177	Photo	3	11	6	10	0	5990
102	137020	Photo	2	10	4	3	0	68896
106	137020	Photo	1	10	2	4	0	70144
108	136736	Status	2	10	1	4	0	9504
143	136013	Status	2	10	3	2	1	31136
151	135713	Photo	1	10	6	4	0	39984
153	135713	Photo	2	10	5	4	1	6564
157	135700	Photo	2	9	2	11	0	3756
159	135700	Photo	2	9	1	10	0	5086
163	135617	Photo	3	9	6	10	0	7512
169	135428	Photo	1	9	3	10	0	41984
173	135195	Status	2	9	1	10	0	21256
177	135195	Photo	3	9	6	3	1	22304
181	134879	Status	2	9	4	4	1	9124
200	132817	Photo	3	8	4	10	0	33536
218	131956	Status	2	8	2	12	0	14424
220	131956	Photo	3	8	1	12	0	5746
224	131808	Status	2	8	6	10	1	20168
229	131728	Photo	2	7	4	3	0	14824
244	130791	Video	1	7	3	11	1	21872
245	130791	Photo	2	7	3	5	1	180480
256	129600	Photo	2	7	4	12	1	3726
269	128032	Photo	1	7	5	3	0	6408
273	127082	Photo	1	7	3	3	1	76096

275	126424	Photo	2	7	4	3	0	3706
276	126424	Status	2	7	3	13	0	18320
278	126424	Video	1	6	2	13	0	139008
289	126141	Photo	1	6	4	12	0	20896
320	123047	Photo	2	6	4	5	1	11304
324	123047	Photo	3	6	1	10	0	56672
329	120050	Photo	3	5	4	12	0	39040
331	120050	Photo	3	5	3	12	0	21248
339	119198	Photo	3	5	5	10	1	6460
340	117764	Photo	1	5	4	10	0	18056
347	117764	Photo	3	5	7	2	0	38960
350	117764	Photo	3	5	5	13	0	81856
360	116091	Photo	3	5	7	2	0	6984
371	113028	Photo	1	4	6	14	0	28352
372	113028	Status	2	4	6	3	1	17912
380	111620	Photo	3	4	1	14	1	105632
437	100732	Photo	1	3	6	13	1	9604

Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions

4	87991	2211	790	1119
5	13594	671	410	580
29	18264	973	559	885
30	61262	1141	1068	1728
31	9390	385	306	501
38	28663	479	424	805
52	40125	726	467	863
66	6167	356	298	641
68	93790	1576	995	1469
72	220447	2101	1735	2331
76	68610	1150	808	1341
82	11123	657	361	512
102	104952	2624	1326	1952
106	111745	3216	2628	4782
108	19556	1132	1032	1512
143	59964	6164	5934	9237
151	112830	2105	1921	3932
153	12097	806	602	957
157	7094	469	408	613
159	9493	622	509	757
163	13633	769	614	951
169	68290	3370	2420	4074
173	41906	4840	4754	5906



177	37159	1805	984	1618
181	17776	1476	1397	1797
200	64850	1954	1016	1678
218	26000	304	286	383
220	9874	769	632	1063
224	35904	3370	3244	5106
229	21863	868	591	966
244	40413	3872	3822	7327
245	319133	8072	4010	6242
256	6372	602	574	785
269	11881	909	861	14974
273	94644	2889	2495	4596
275	6194	895	884	1173
276	31448	3742	3682	7854
278	277100	1779	1643	2356
289	29062	1418	1038	2048
320	20647	1141	1065	1874
324	104966	2579	1334	1850
329	55633	1684	1183	2123
331	34095	1049	918	1438
339	11373	823	706	1197
340	32576	1062	875	1389
347	65149	2298	1702	3000
350	124753	3000	1637	2718
360	12066	780	631	1116
371	55202	1476	1242	1990
372	34774	2750	2567	6591
380	147918	3984	2254	3391
437	16557	1061	1037	9614

Lifetime.Post.Impressions.by.people.who.have.liked.your.Page Lifetime.Post.reach.by.people.who.like.your.Page

4	61027	32048
5	6228	3200
29	9217	4748
30	30131	14112
31	5860	2930
38	5187	2752
52	16132	8608
66	4530	2388
68	32646	14912
72	59658	18880
76	22100	10880

82	5057	2628
102	35707	19840
106	43671	20608
108	16018	7616
143	35977	18048
151	70249	21328
153	7682	4024
157	4935	2556
159	6200	3298
163	5503	3260
169	34802	20928
173	35455	17592
177	22864	13304
181	13887	7092
200	50076	24448
218	25539	14056
220	7407	4288
224	26881	15056
229	13498	8560
244	24667	12920
245	108752	51456
256	4760	2852
269	7243	4040
273	31096	19744
275	4700	2726
276	25584	14920
278	107502	38720
289	19738	13656
320	14792	7800
324	78678	37408
329	32021	19712
331	11280	6664
339	6279	3612
340	26514	14728
347	57722	34368
350	52477	27392
360	8188	4776
371	47899	24512
372	21009	11408
380	48575	27328
437	13618	7984

Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comment like share Total.Interactions

4	1386	58	1572	147	1777
5	396	19	325	49	393
29	621	36	523	63	622
30	559	18	143	13	174
31	273	33	107	22	162
38	248	16	76	8	100
52	451	24	285	28	337
66	280	19	77	23	119
68	884	20	697	70	787
72	885	17	449	84	550
76	724	20	411	74	505
82	428	18	370	53	441
102	1354	26	1505	95	1626
106	1542	42	955	139	1136
108	981	17	193	28	238
143	4376	60	859	90	1009
151	1609	24	302	41	367
153	563	47	358	49	454
157	365	16	117	30	163
159	489	30	187	35	252
163	530	22	290	98	410
169	2126	144	1622	208	1974
173	4318	38	163	27	228
177	1349	29	1047	98	1174
181	1331	20	150	29	199
200	1564	33	1155	102	1290
218	291	41	15	1	57
220	584	16	227	28	271
224	2806	18	332	54	404
229	650	64	367	25	456
244	2218	18	315	76	409
245	3316	372	5172	790	6334
256	399	30	47	8	85
269	490	26	162	7	195
273	1276	22	534	31	587
275	493	18	46	7	71
276	3300	36	98	14	148
278	1008	23	204	44	271
289	998	103	469	33	605
320	732	18	168	49	235

324	1831	20	1372	47	1439
329	1101	16	617	58	691
331	536	20	199	32	251
339	505	25	244	44	313
340	701	25	307	58	390
347	1978	37	821	90	948
350	1756	45	1639	122	1806
360	570	25	256	54	335
371	1185	45	407	76	528
372	2256	17	447	123	587
380	1936	51	1998	128	2177
437	705	16	127	0	143

[ reached 'max' / getOption("max.print") -- omitted 5 rows ]

```
> v3 <- dataset_Facebook[c(10:25),c(2,7:9)]
```

```
> View(v3)
```

```
> v3
```

	Type	Paid	Lifetime.Post.Total.Reach	Lifetime.Post.Total.Impressions
10	Photo	0	4694	8668
11	Status	0	21744	42334
12	Photo	0	3112	5590
13	Photo	0	2847	5133
14	Photo	0	2549	4896
15	Photo	1	22784	39941
16	Status	0	10060	19680
17	Photo	0	1722	2981
18	Photo	1	53264	111785
19	Status	0	3930	7509
20	Photo	0	1591	2825
21	Photo	0	2848	5066
22	Photo	0	1384	2467
23	Link	0	3454	6853
24	Photo	0	2723	4888
25	Status	0	8488	15294

```
> #merge data
```

```
> v1 <- dataset_Facebook[c(10:12),c(2,6:7)]
```

```
> v3 <- dataset_Facebook[c(11:14),c(2,7:9)]
```

```
> m1 <- merge(v1,v3,by="Paid")
```

```
> # View(m1)
```

```
> m1
```

	Paid	Type.x	Post.Hour	Type.y	Lifetime.Post.Total.Reach	Lifetime.Post.Total.Impressions
1	0	Photo	10	Status	21744	42334

2	0	Photo	10	Photo	3112	5590
3	0	Photo	10	Photo	2847	5133
4	0	Photo	10	Photo	2549	4896
5	0	Status	10	Status	21744	42334
6	0	Status	10	Photo	3112	5590
7	0	Status	10	Photo	2847	5133
8	0	Status	10	Photo	2549	4896
9	0	Photo	10	Status	21744	42334
10	0	Photo	10	Photo	3112	5590
11	0	Photo	10	Photo	2847	5133
12	0	Photo	10	Photo	2549	4896

> #sort data

> s1 <- dataset\_Facebook[order(dataset\_Facebook\$comment),]

> # View(s1)

> s1

	Page.total.likes	Type	Category	Post.Month	Post.Weekday	Post.Hour	Paid	Lifetime.Post.Total.Reach
3	139441	Photo	3	12	3	3	0	2413
8	139441	Photo	3	12	7	9	1	13720
9	139441	Status	2	12	7	3	0	11844
11	139441	Status	2	12	5	10	0	21744
12	139441	Photo	2	12	5	10	0	3112
13	139441	Photo	2	12	5	10	0	2847
20	138414	Photo	3	12	1	11	0	1591
22	138414	Photo	1	12	7	10	0	1384
23	138414	Link	1	12	7	10	0	3454
24	138414	Photo	3	12	7	3	0	2723
26	138458	Status	2	12	6	3	0	8284
28	138458	Photo	3	12	5	3	0	2478
37	138895	Photo	3	12	1	3	0	2690
45	138353	Photo	1	12	4	11	0	4284
49	138353	Photo	1	12	2	11	0	3786
58	138329	Photo	1	11	5	3	0	2545
67	138185	Photo	1	11	7	11	0	2149
69	138185	Photo	1	11	6	11	0	2168
77	137893	Photo	1	11	3	2	0	1228
79	137177	Photo	2	11	1	3	0	1445
92	137059	Photo	2	11	1	9	0	2219
101	137020	Photo	1	10	4	9	1	1357
104	137020	Photo	1	10	3	4	0	1388
112	136736	Photo	1	10	6	8	0	1261
115	136642	Photo	1	10	7	13	0	1592

116	136642	Photo	1	10	7	12	1	813
118	136642	Photo	1	10	7	11	0	729
119	136642	Photo	1	10	7	10	0	834
120	136393	Photo	1	10	7	10	0	786
121	136393	Photo	1	10	7	9	0	584
125	136393	Photo	1	10	7	6	0	677
126	136393	Photo	1	10	7	5	0	677
128	136393	Photo	1	10	6	13	0	747
129	136393	Photo	1	10	6	13	0	645
130	136393	Photo	1	10	6	12	0	754
131	136393	Photo	1	10	6	11	0	910
132	136393	Photo	1	10	6	9	0	3906
134	136393	Photo	1	10	6	8	0	652
136	136393	Photo	1	10	6	2	0	3690
137	136393	Link	1	10	5	10	0	4664
139	136013	Status	2	10	5	3	0	8896
147	136013	Photo	3	10	1	3	0	18120
148	135713	Photo	3	10	7	10	0	2291
150	135713	Link	1	10	6	11	1	3616
156	135700	Photo	2	9	3	7	0	1685
165	135428	Photo	1	9	5	10	0	1060
166	135428	Photo	2	9	5	3	1	2790
186	134879	Photo	1	9	1	10	0	2232
188	134879	Photo	2	9	7	10	0	1804
193	133679	Photo	2	8	1	4	0	2295
199	133451	Photo	1	8	4	9	1	1954
202	132817	Photo	1	8	3	9	0	3376

Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions

3	4373	177	113	154
8	24137	537	232	305
9	22538	1530	1407	1692
11	42334	4258	4100	4540
12	5590	208	127	145
13	5133	193	115	133
20	2825	121	88	111
22	2467	15	15	20
23	6853	118	104	130
24	4888	176	118	143
26	15104	1521	1462	1711
28	4306	212	124	149
37	4628	252	168	226

45	8387	355	316	513
49	7329	338	283	450
58	4846	165	131	167
67	4120	197	156	219
69	3891	211	168	202
77	2392	17	17	19
79	2774	217	167	211
92	4545	287	220	329
101	2453	37	37	55
104	2544	224	219	931
112	2158	37	37	49
115	2749	370	356	414
116	1568	323	319	387
118	1374	303	298	331
119	1570	399	392	510
120	1573	263	257	318
121	1029	273	271	308
125	1285	251	246	297
126	1240	236	228	264
128	1443	226	220	287
129	1117	195	192	224
130	1510	206	205	252
131	1673	207	201	247
132	8239	868	863	2632
134	1331	214	206	249
136	7659	424	388	644
137	9463	204	182	251
139	17202	1480	1426	1932
147	44940	421	282	463
148	3960	303	243	325
150	6887	111	90	118
156	2999	322	295	424
165	2004	266	251	337
166	4879	435	360	513
186	4005	374	335	458
188	2968	330	280	352
193	3721	377	324	402
199	3530	356	333	443
202	6557	428	409	631

Lifetime.Post.Impressions.by.people.who.have.liked.your.Page Lifetime.Post.reach.by.people.who.like.your.Page

8	19728	11056
9	15220	7912
11	37849	18952
12	3887	2174
13	3779	2072
20	2116	1161
22	2196	1172
23	6282	3100
24	2964	1621
26	10266	5372
28	2612	1443
37	3052	1727
45	7283	3634
49	6336	3216
58	3675	1901
67	3302	1640
69	2873	1539
77	2392	1228
79	1924	1005
92	3189	1495
101	2154	1120
104	2161	1214
112	1911	1077
115	2551	1454
116	1402	695
118	1284	650
119	1390	704
120	1401	660
121	943	511
125	1210	615
126	1098	580
128	1252	632
129	989	554
130	1430	690
131	1503	782
132	7736	3768
134	1249	588
136	6951	3290
137	7196	3324
139	13838	7020
147	4401	2616



148	3020	1723
150	4263	2138
156	1794	953
165	1705	870
166	3501	1999
186	3247	1740
188	2293	1354
193	3121	1882
199	3295	1772
202	5700	2806

Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comment like share Total.Interactions

3	132	0	66	14	80
8	422	0	325	14	339
9	1250	0	161	31	192
11	3798	0	233	19	252
12	165	0	88	18	106
13	152	0	90	14	104
20	100	0	34	8	42
22	15	0	0	0	0
23	106	0	16	2	18
24	143	0	72	24	96
26	1200	0	88	18	106
28	166	0	100	17	117
37	199	0	96	17	113
45	291	0	47	11	58
49	280	0	77	15	92
58	134	0	40	13	53
67	161	0	48	7	55
69	171	0	53	17	70
77	17	0	0	0	0
79	154	0	56	8	64
92	221	0	78	13	91
101	32	0	0	0	0
104	172	0	13	4	17
112	33	0	NA	NA	0
115	327	0	15	2	17
116	280	0	4	2	6
118	262	0	7	0	7
119	351	0	7	2	9
120	222	0	6	2	8
121	232	0	2	NA	2

125	211	0	7	NA	7
126	196	0	7	2	9
128	194	0	9	1	10
129	166	0	4	1	5
130	175	0	3	0	3
131	176	0	8	2	10
132	774	0	7	3	10
134	182	0	11	1	12
136	377	0	56	12	68
137	173	0	32	16	48
139	1292	0	129	25	154
147	327	0	189	15	204
148	253	0	80	14	94
150	93	0	24	11	35
156	237	0	54	16	70
165	204	0	18	NA	18
166	351	0	113	19	132
186	278	0	62	10	72
188	234	0	61	6	67
193	269	0	63	7	70
199	252	0	30	2	32
202	331	0	40	5	45

[ reached 'max' /getOption("max.print") -- omitted 448 rows ]

```
> s2 <- dataset_Facebook[order(dataset_Facebook$comment, -dataset_Facebook$share),]
```

```
> # View(s2)
```

```
> s2
```

	Page.total.likes	Type	Category	Post.Month	Post.Weekday	Post.Hour	Paid	Lifetime.Post.Total.Reach
9	139441	Status	2	12	7	3	0	11844
376	111620	Photo	3	4	4	7	1	12824
452	93470	Photo	1	2	5	12	0	6416
500	81370	Photo	2	1	4	4	NA	4188
139	136013	Status	2	10	5	3	0	8896
24	138414	Photo	3	12	7	3	0	2723
497	81370	Photo	2	1	5	8	0	3480
295	125612	Photo	1	6	2	13	0	3600
232	131630	Photo	3	7	2	13	0	2973
334	119198	Photo	3	5	2	1	0	3024
445	96749	Photo	2	3	2	5	0	5312
11	139441	Status	2	12	5	10	0	21744
166	135428	Photo	2	9	5	3	1	2790
248	129600	Photo	2	7	1	12	0	3460

476	86909 Photo	3	1	6	16	1	5754
12	139441 Photo	2	12	5	10	0	3112
26	138458 Status	2	12	6	3	0	8284
362	116091 Photo	3	5	6	3	0	3332
28	138458 Photo	3	12	5	3	0	2478
37	138895 Photo	3	12	1	3	0	2690
69	138185 Photo	1	11	6	11	0	2168
317	123047 Photo	3	6	5	12	0	3234
137	136393 Link	1	10	5	10	0	4664
156	135700 Photo	2	9	3	7	0	1685
299	125612 Photo	2	6	7	11	0	3558
375	113028 Photo	1	4	4	12	1	6880
49	138353 Photo	1	12	2	11	0	3786
147	136013 Photo	3	10	1	3	0	18120
247	130791 Photo	2	7	2	8	0	2881
261	129600 Photo	2	7	2	7	1	4274
473	91223 Photo	1	2	2	13	0	5240
3	139441 Photo	3	12	3	3	0	2413
8	139441 Photo	3	12	7	9	1	13720
13	139441 Photo	2	12	5	10	0	2847
148	135713 Photo	3	10	7	10	0	2291
388	109670 Photo	1	4	3	13	1	5402
391	109670 Photo	3	4	2	2	1	3130
420	102112 Photo	1	3	3	4	0	5080
58	138329 Photo	1	11	5	3	0	2545
92	137059 Photo	2	11	1	9	0	2219
283	126345 Status	2	6	7	11	0	12044
377	111620 Photo	3	4	3	7	0	6596
421	102112 Photo	1	3	2	12	0	4068
438	100732 Photo	1	3	6	10	0	122944
475	91009 Photo	1	2	1	12	0	21928
136	136393 Photo	1	10	6	2	0	3690
45	138353 Photo	1	12	4	11	0	4284
150	135713 Link	1	10	6	11	1	3616
186	134879 Photo	1	9	1	10	0	2232
298	125612 Photo	3	6	1	3	0	2763
333	119198 Photo	3	5	2	12	0	2718
264	128032 Photo	2	7	7	11	1	3528

Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions

9	22538	1530	1407	1692
376	18929	830	623	864

452	11459	1362	1313	1652
500	7292	564	524	743
139	17202	1480	1426	1932
24	4888	176	118	143
497	6229	537	508	687
295	5807	691	656	913
232	5063	356	297	415
334	5630	596	560	721
445	9411	603	582	795
11	42334	4258	4100	4540
166	4879	435	360	513
248	6503	541	482	667
476	9238	1179	1143	1452
12	5590	208	127	145
26	15104	1521	1462	1711
362	5797	463	406	552
28	4306	212	124	149
37	4628	252	168	226
69	3891	211	168	202
317	5113	756	724	937
137	9463	204	182	251
156	2999	322	295	424
299	5396	621	568	775
375	11736	671	639	889
49	7329	338	283	450
147	44940	421	282	463
247	5188	550	503	730
261	7948	701	638	1020
473	8893	857	837	1020
3	4373	177	113	154
8	24137	537	232	305
13	5133	193	115	133
148	3960	303	243	325
388	8891	700	633	1078
391	5313	522	495	616
420	8238	523	505	727
58	4846	165	131	167
92	4545	287	220	329
283	20327	2240	2193	3599
377	9835	564	526	678
421	7333	538	513	934

438	457509	1373	1268	2106
475	39641	1512	1479	1837
136	7659	424	388	644
45	8387	355	316	513
150	6887	111	90	118
186	4005	374	335	458
298	4388	564	523	650
333	4698	566	528	663
264	5918	550	513	787

Lifetime.Post.Impressions.by.people.who.have.liked.your.Page Lifetime.Post.reach.by.people.who.like.your.Page

9	15220	7912
376	15678	10968
452	9122	4716
500	3861	2200
139	13838	7020
24	2964	1621
497	3961	2104
295	3351	2110
232	3764	2208
334	4114	2098
445	7034	3588
11	37849	18952
166	3501	1999
248	4371	2260
476	6101	3546
12	3887	2174
26	10266	5372
362	4347	2330
28	2612	1443
37	3052	1727
69	2873	1539
317	3476	2174
137	7196	3324
156	1794	953
299	3708	2392
375	9389	5232
49	6336	3216
147	4401	2616
247	3840	2040
261	5936	3164
473	7420	4232

3	2812	1503
8	19728	11056
13	3779	2072
148	3020	1723
388	6733	3992
391	3821	2112
420	6630	3892
58	3675	1901
92	3189	1495
283	17717	10400
377	8242	5352
421	5914	3198
438	72846	13184
475	6338	3672
136	6951	3290
45	7283	3634
150	4263	2138
186	3247	1740
298	3519	2124
333	3601	1992
264	4606	2660

Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comment like share Total.Interactions

9	1250	0	161	31	192
376	705	0	286	30	316
452	497	0	96	29	125
500	316	0	91	28	119
139	1292	0	129	25	154
24	143	0	72	24	96
497	301	0	53	22	75
295	436	0	72	21	93
232	266	0	94	20	114
334	341	0	64	20	84
445	345	0	48	20	68
11	3798	0	233	19	252
166	351	0	113	19	132
248	314	0	96	19	115
476	420	0	65	19	84
12	165	0	88	18	106
26	1200	0	88	18	106
362	341	0	87	18	105
28	166	0	100	17	117

37	199	0	96	17	113
69	171	0	53	17	70
317	347	0	58	17	75
137	173	0	32	16	48
156	237	0	54	16	70
299	403	0	78	16	94
375	556	0	59	16	75
49	280	0	77	15	92
147	327	0	189	15	204
247	323	0	73	15	88
261	460	0	128	15	143
473	466	0	46	15	61
3	132	0	66	14	80
8	422	0	325	14	339
13	152	0	90	14	104
148	253	0	80	14	94
388	514	0	112	14	126
391	385	0	48	14	62
420	403	0	39	14	53
58	134	0	40	13	53
92	221	0	78	13	91
283	2119	0	104	13	117
377	456	0	66	13	79
421	402	0	61	13	74
438	475	0	136	13	149
475	497	0	73	13	86
136	377	0	56	12	68
45	291	0	47	11	58
150	93	0	24	11	35
186	278	0	62	10	72
298	375	0	62	10	72
333	306	0	50	10	60
264	360	0	66	9	75

[ reached 'max' / getOption("max.print") -- omitted 448 rows ]

```
> # Transposing Data (Row names bacome column names)
```

```
> t(v1)
```

```
      10    11    12
Type   "Photo" "Status" "Photo"
Post.Hour "10"  "10"  "10"
Paid      "0"   "0"   "0"
```

```
> # Melting Data to long format
```

```
> library(reshape2)
```

Warning message:

package 'reshape2' was built under R version 3.6.3

```
> # Melt, i.e. each row is a unique ID-variable combination
```

```
> m1 <- melt(v3, id <- c("Type", "Lifetime.Post.Total.Reach"))
```

```
> m2 <- m1 # Extra variable
```

```
> View(m1)
```

```
> m1
```

	Type	Lifetime.Post.Total.Reach	variable	value
1	Status	21744	Paid	0
2	Photo	3112	Paid	0
3	Photo	2847	Paid	0
4	Photo	2549	Paid	0
5	Status	21744	Lifetime.Post.Total.Impressions	42334
6	Photo	3112	Lifetime.Post.Total.Impressions	5590
7	Photo	2847	Lifetime.Post.Total.Impressions	5133
8	Photo	2549	Lifetime.Post.Total.Impressions	4896

```
> levels(m1$variable)[levels(m1$variable) == 'Paid'] <- 'first'
```

```
> levels(m1$variable)[levels(m1$variable) == 'Lifetime.Post.Total.Impressions'] <- 'second'
```

```
> m1
```

	Type	Lifetime.Post.Total.Reach	variable	value
1	Status	21744	first	0
2	Photo	3112	first	0
3	Photo	2847	first	0
4	Photo	2549	first	0
5	Status	21744	second	42334
6	Photo	3112	second	5590
7	Photo	2847	second	5133
8	Photo	2549	second	4896

```
> # Sort as per Type and variable
```

```
> # This is long format
```

```
> m1 <- m1[ order(m1$Type,m1$variable),]
```

```
> m1
```

	Type	Lifetime.Post.Total.Reach	variable	value
2	Photo	3112	first	0
3	Photo	2847	first	0
4	Photo	2549	first	0
6	Photo	3112	second	5590
7	Photo	2847	second	5133
8	Photo	2549	second	4896
1	Status	21744	first	0



```
5 Status          21744 second 42334
```

```
> # Long to wide
```

```
> m2_wide = dcast(m2, Type + Lifetime.Post.Total.Reach ~ variable, value.var = "value")
```

```
> # This is the wide format data
```

```
> m2_wide
```

```
  Type Lifetime.Post.Total.Reach Paid Lifetime.Post.Total.Impressions
```

```
1 Photo          2549  0          4896
```

```
2 Photo          2847  0          5133
```

```
3 Photo          3112  0          5590
```

```
4 Status         21744  0         42334
```

```
>
```