

```
#Roll no. 33235
# Batch L10
# Assignment 5 (1): Perform sub-setting, melting and casting of dataset (Facebook).
```

```
R version 3.6.2 (2019-12-12) -- "Dark and Stormy Night"
Copyright (C) 2019 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)
```

```
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
```

```
Natural language support but running in an English locale
```

```
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.
```

```
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.
```

```
> mydata <- read.csv2(file.choose(),header = T, sep = ';')
> View(mydata)
> sub1 <- mydata[c(1 : 150),c(2,16:18)]
> View(sub1)
> head(sub1)
  Type comment like share
1 Photo      4    79    17
2 Status     5   130    29
3 Photo      0    66    14
4 Photo     58  1572   147
5 Photo     19   325    49
6 Status      1   152    33
> mean(sub1$comment)
[1] 5.713333
> sub2 <- subset(mydata,comment>(mean(sub1$comment)))
> View(sub2)
> #merge data
> sub3 <- mydata[c(10:12),c(2,6:7)]
> sub4 <- mydata[c(11:14),c(2,7:9)]
> sub3
  Type Post.Hour Paid
10 Photo          10    0
11 Status          10    0
12 Photo          10    0
> sub4
  Type Paid Lifetime.Post.Total.Reach Lifetime.Post.Total.Impressions
11 Status    0                    21744                    42334
12 Photo     0                     3112                     5590
13 Photo     0                     2847                     5133
14 Photo     0                     2549                     4896
> #Join
> mergedata <- merge(sub3,sub4,by="Paid")
> View(mergedata)
> mergedata
  Paid Type.x Post.Hour Type.y Lifetime.Post.Total.Reach Lifetime.Post.To
tal.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					

```
> sub5 <- mydata[c(1:10),c(2,6:7)]
> sub6 <- mydata[c(11:20),c(2,6:7)]
> mergeh <- rbind(sub5,sub6)
> View(mergeh)
> mergeh
```

	Type	Post.Hour	Paid
1	Photo	3	0
2	Status	10	0
3	Photo	3	0
4	Photo	10	1
5	Photo	3	0
6	Status	9	0
7	Photo	3	1
8	Photo	9	1
9	Status	3	0
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

```
> sub7 <- mydata[c(1:10),c(2)]
> sub8 <- mydata[c(1:10),c(6)]
> mergev <- cbind(sub7,sub8)
> View(mergev)
> mergev
```

	sub7	sub8
[1,]	2	3
[2,]	3	10
[3,]	2	3
[4,]	2	10
[5,]	2	3
[6,]	3	9
[7,]	2	3
[8,]	2	9
[9,]	3	3
[10,]	2	10

```
> #Sort data
> sort1 <- mydata[order(-mydata$Page.total.likes),]
> View(sort1)
> head(sort1)
```

	Page.total.likes	Type	Category	Post.Month	Post.Weekday	Post.Hour	Paid
1	139441	Photo	2	12	4	3	0
2	139441	Status	2	12	3	10	0
3	139441	Photo	3	12	3	3	0
4	139441	Photo	2	12	2	10	1
5	139441	Photo	2	12	2	3	0
6	139441	Status	2	12	1	9	0

	Lifetime.Post.Total.Reach	Lifetime.Post.Total.Impressions	Lifetime.Engaged.Users
1	2752	5091	
178			
2	10460	19057	
1457			
3	2413	4373	
177			
4	50128	87991	
2211			
5	7244	13594	
671			
6	10472	20849	
1191			

	Lifetime.Post.Consumers	Lifetime.Post.Consumptions
1	109	159
2	1361	1674
3	113	154
4	790	1119
5	410	580
6	1073	1389

	Lifetime.Post.Impressions.by.people.who.have.liked.your.Page
1	3078
2	11710
3	2812
4	61027
5	6228
6	16034

	Lifetime.Post.reach.by.people.who.like.your.Page
1	1640
2	6112
3	1503
4	32048
5	3200
6	7852

	Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post	comment like share
1		119
4	79 17	
2		1108
5	130 29	
3		132
0	66 14	
4		1386
58	1572 147	
5		396
19	325 49	
6		1016
1	152 33	

	Total.Interactions
1	100
2	164
3	80
4	1777
5	393
6	186

```

> sort2 <- mydata[order(mydata$comment,-mydata$Page.total.likes),]
> mycomment <- sort2$comment
> mylikes <- sort2$Page.total.likes
> df <- cbind(mycomment,mylikes)
> View(df)
> #Transposing data
> View(t(mydata))
> library("reshape2")
> library("reshape")

```

Attaching package: 'reshape'

The following objects are masked from 'package:reshape2':

colsplit, melt, recast

```
Warning message:
package 'reshape' was built under R version 3.6.3
> #Long format
> #Melting data
> sub9 <- mydata[c(1:10),c(1:19)]
> melt1<- melt(sub9,id <- c("Type","Lifetime.Post.Total.Reach"))
> melt2<- melt1
> View(melt1)
> head(melt1)
  Type Lifetime.Post.Total.Reach variable value
1 Photo                2752 Page.total.likes 139441
2 Status                10460 Page.total.likes 139441
3 Photo                 2413 Page.total.likes 139441
4 Photo                50128 Page.total.likes 139441
5 Photo                 7244 Page.total.likes 139441
6 Status                10472 Page.total.likes 139441
> #sub5 <- mydata[c(11:14),c(2,7:9)]
> #melt1 <- melt(sub5, id <- c("Type","Lifetime.Post.Total.Reach"))
> View(melt1)
> head(melt1)
  Type Lifetime.Post.Total.Reach variable value
1 Photo                2752 Page.total.likes 139441
2 Status                10460 Page.total.likes 139441
3 Photo                 2413 Page.total.likes 139441
4 Photo                50128 Page.total.likes 139441
5 Photo                 7244 Page.total.likes 139441
6 Status                10472 Page.total.likes 139441
> tail(melt1)
  Type Lifetime.Post.Total.Reach variable value
165 Photo                 7244 Total.Interactions   393
166 Status                10472 Total.Interactions   186
167 Photo                11692 Total.Interactions   279
168 Photo                13720 Total.Interactions   339
169 Status                11844 Total.Interactions   192
170 Photo                 4694 Total.Interactions   142
> # Long to wide
> #Casting of molten data
> View(melt2)
> cast1 = dcast(melt2,Type + Lifetime.Post.Total.Reach ~ variable, value.v
ar = "value")
> # This is the wide format data
> View(cast1)
> head(cast1)
  Type Lifetime.Post.Total.Reach Page.total.likes Category Post.Month Pos
t.Weekday Post.Hour
1 Photo                 2413          139441          3          12
3          3
2 Photo                 2752          139441          2          12
4          3
3 Photo                 4694          139441          3          12
6          10
4 Photo                 7244          139441          2          12
2          3
5 Photo                11692          139441          3          12
1          3
6 Photo                13720          139441          3          12
7          9
  Paid Lifetime.Post.Total.Impressions Lifetime.Engaged.Users Lifetime.Pos
t.Consumers
1      0                4373                177
113
2      0                5091                178
109
3      0                8668                280
183
```

```

4      0      13594      671
410
5      1      19479      481
265
6      1      24137      537
232
Lifetime.Post.Consumptions Lifetime.Post.Impressions.by.people.who.have.
Liked.your.Page
1      154
2812
2      159
3078
3      250
4309
4      580
6228
5      364
15432
6      305
19728
Lifetime.Post.reach.by.people.who.like.your.Page
1      1503
2      1640
3      2324
4      3200
5      9328
6      11056
Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comm
ent like share
1      132
0      66      14
2      119
4      79      17
3      199
3      113      26
4      396
19      325      49
5      379
3      249      27
6      422
0      325      14
Total.Interactions
1      80
2      100
3      142
4      393
5      279
6      339
> tail(cast1)
Type Lifetime.Post.Total.Reach Page.total.likes Category Post.Month P
ost.Weekday
5      Photo      11692      139441      3      12
1
6      Photo      13720      139441      3      12
7
7      Photo      50128      139441      2      12
2
8      Status      10460      139441      2      12
3
9      Status      10472      139441      2      12
1
10     Status      11844      139441      2      12
7
Post.Hour Paid Lifetime.Post.Total.Impressions Lifetime.Engaged.Users
5      3      1      19479      481
6      9      1      24137      537
7      10     1      87991      2211
8      10     0      19057      1457
9      9      0      20849      1191

```

10	3	0	22538	1530
	Lifetime.Post.Consumers		Lifetime.Post.Consumptions	
5		265	364	
6		232	305	
7		790	1119	
8		1361	1674	
9		1073	1389	
10		1407	1692	
	Lifetime.Post.Impressions.by.people.who.have.liked.your.Page			
5			15432	
6			19728	
7			61027	
8			11710	
9			16034	
10			15220	
	Lifetime.Post.reach.by.people.who.like.your.Page			
5			9328	
6			11056	
7			32048	
8			6112	
9			7852	
10			7912	
	Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post		comment like share	
5				379
3	249	27		
6				422
0	325	14		
7				1386
58	1572	147		
8				1108
5	130	29		
9				1016
1	152	33		
10				1250
0	161	31		
	Total.Interactions			
5		279		
6		339		
7		1777		
8		164		
9		186		
10		192		