```
> dataset = read.csv("FB.csv")
 dim(dataset)
[1] 500 19
> ncol(dataset)
[1] 19
> nrow(dataset)
[1] 500
> head(dataset)
                       Type Category Post. Month Post. Weekday Post. Hour Paid
  Page.total.likes
1
             139441
                      Photo
                                                12
                                                                            3
2
3
             139441 Status
                                                                3
                                                                                 0
                                                12
                                                                          10
             139441
                                     3
                                                12
                                                                3
                                                                           3
                                                                                 0
                      Photo
                                     ž
4
                                                12
                                                                          10
             139441
                      Photo
                                                                                 1
5
                                     2
                                                12
             139441
                                                                                 0
                      Photo
                                                                            3
             139441 Status
                                                12
                                                                            9
                                                                                 0
6
  Lifetime.Post.Total.Reach Lifetime.Post.Total.Impressions
1
                          2752
                                                              5091
2
                                                             19057
                        10460
                          2413
                                                              4373
4
                        50128
                                                             87991
5
                         7244
                                                             13594
6
                        10472
                                                             20849
  Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions
                       178
                                                   109
                                                                                 159
2
3
                      1457
                                                 1361
                                                                                1674
                       177
                                                   113
                                                                                 154
4
5
                      2211
                                                   790
                                                                                1119
                                                   410
                       671
                                                                                 580
                                                                                1389
6
                                                 1073
                      1191
  Lifetime.Post.Impressions.by.people.who.have.liked.your.Page
1
                                                                 3078
2
                                                                11710
                                                                 2812
4
                                                                61027
5
                                                                 6228
6
                                                                16034
  Lifetime.Post.reach.by.people.who.like.your.Page
                                                    1640
2
3
4
                                                    6112
                                                    1503
                                                   32048
5
                                                    3200
                                                    7852
6
  Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comment
                                                                          119
                                                                                      4
2
                                                                                      5
                                                                         1108
                                                                                     0
                                                                          132
4
                                                                         1386
                                                                                     58
5
                                                                          396
                                                                                     19
6
                                                                         1016
                                                                                      1
  like share Total.Interactions
1
    79
           17
                               100
   130
           29
                               164
3
    66
           14
                                80
 1572
4
          147
                              1777
                               393
   325
           49
   152
6
           33
                               186
```

------Create data Subset-----

```
subset1 = dataset[c('comment','like','share')]
 head(subset1)
  comment like share
              79
                     17
2
                     29
            130
         0
              66
                     14
        58 1572
4
                    147
            325
5
        19
                     49
6
            152
                     33
> subset2 = dataset[c('Category','Paid','Type')
 head(subset2)
  Category Paid
                     Туре
                    Photo
2
3
           2
                   Status
                0
           3
                0
                    Photo
           2
                    Photo
5
                    Photo
6
                0 Status
-----Merge dataset-----
> subset3=merge(subset1,subset2)
  head(subset3)
  comment like share Category Paid Type 4 79 17 2 0 Photo
2
                     29
            130
                                 2 2 2 2 2
                                       0 Photo
              66
                     14
                                       0 Photo
        58 1572
4
                    147
                                       0 Photo
5
        19
                     49
            325
                                       0 Photo
6
            152
                     33
                                       0 Photo
                   -----Transpose dataset------
> transposedata=t(dataset)
[,1] [,2] [,3] [,4] [,5] [,6] [,7]
Page.total.likes "139441" "139441" "139441" "139441" "139441" "139441" "139441"
                    "Photo" "Status" "Photo" "Photo" "Status" "Photo
Туре
[,8] [,9] [,10] [,11] [,12] [,13] [,14] Page.total.likes "139441" "139441" "139441" "139441" "139441" "139441" "139441"
                    "Photo" "Status" "Photo" "Status" "Photo" "Photo" "Photo
Туре
[,15] [,16] [,17] [,18] [,19] [,20] [,21] Page.total.likes "138414" "138414" "138414" "138414" "138414" "138414" "138414"
                    "Photo"
                              "Status" "Photo" "Photo" "Status" "Photo" "Photo
Type
                    [,22]
"138414"
                              [,23] [,24] [,25] [,26] [,27] [,28] "138414" "138414" "138458" "138458" "138458"
Page.total.likes
8"
                              "Link"
                                         "Photo" "Status" "Status" "Photo
                    "Photo"
Туре
[,29] [,30] [,31] [,32] [,33] [,34] [,35]
Page.total.likes "138895" "138895" "138895" "138895" "138895" "138895" "138895"
                    "Photo"
                               "Video"
                                         "Photo"
                                                    "Photo"
                                                               "Photo"
                                                                         "Photo"
                                                                                    "Photo
Туре
                    [,36]
                               [,37]
                                         [,38]
                                                    [,39]
                                                               [,40]
                                                                         [,41]
                                                                                    [,42]
```

-----Sort dataset-----

```
> sorteddata=dataset[(dataset$like),]
  head(sorteddata)
                       Type Category Post.Month Post.Weekday Post.Hour Paid
    Page.total.likes
                                                                         3
12
               137177 Photo
                                                11
               136393 Photo
                                     1
130
                                                10
                                                               6
                                                                               0
66
               138185 Photo
                                    1
                                                                          3
                                                                               0
                                               11
                                                               1
               NA <NA>
123047 Photo
                                                              NA
NA
                                   NA
                                               NA
                                                                         NA
                                                                              NA
325
                                                6
                                                                          3
                                     3
                                                               1
                                                                               1
               135713 Photo
152
                                     2
                                               10
                                                                         11
                                                                               0
    Lifetime.Post.Total.Reach Lifetime.Post.Total.Impressions
79
                           1445
                                                              2774
130
                            754
                                                              1510
                           3416
66
                                                              6167
NA
                             NA
                                                                NA
325
                           3294
                                                              5499
152
                           4010
                                                              7444
    Lifetime.Engaged.Users Lifetime.Post.Consumers Lifetime.Post.Consumptions
79
                         217
                                                   167
                                                                                211
130
                         206
                                                   205
                                                                                252
66
                         356
                                                   298
                                                                                641
NA
                         NA
                                                    NA
                                                                                 NA
325
                         526
                                                   488
                                                                                599
152
                                                                                534
                         477
                                                   370
    Lifetime.Post.Impressions.by.people.who.have.liked.your.Page
                                                                 1924
130
                                                                 1430
66
                                                                 4530
NA
                                                                   NA
325
                                                                 4658
152
                                                                 4406
    Lifetime.Post.reach.by.people.who.like.your.Page
79
                                                    1005
130
                                                     690
                                                    2388
66
NA
                                                      NA
325
                                                    2710
152
                                                    2362
    Lifetime.People.who.have.liked.your.Page.and.engaged.with.your.post comme
nt
79
                                                                          154
0
130
                                                                          175
0
66
                                                                          280
19
NA
                                                                           NA
NA
325
                                                                          305
2
152
                                                                          354
2
    like share Total.Interactions
79
      56
             8
                                 64
130
       3
              0
      77
                                119
66
             23
NA
      NA
             NA
                                 NA
      57
325
                                 65
             6
                                200
152
     166
                       ---Melt dataset-----
d = read.csv("FB.csv")
```

```
> subset1=d[c('Category','like','comment','share')]
> melt(data = subset1,id.vars="Category")
      Category variable value
                         like
                                    79
1
2
3
                         1ike
                                   130
                3
                         like
                                    66
4
                2 2 2
                                  1572
                         like
5
                         1ike
                                   325
6
                         like
                                   152
                3
                         like
                                   249
8
                         like
                                   325
```

------Cast dataset------

```
> b = read.csv("FB.csv")
> sub2=b[c('Category','Post.Month','Post.Hour','Paid')]
> head(sub2)
  Category Post Month Post Hour Paid
1
                       12
                                    3
                                           0
2
3
                       12
                                    10
                                           0
           3
                       12
                                           0
                                     3
4
           2
                       12
                                    10
                                           1
5
                       12
                                     3
                                           0
6
                       12
                                     9
                                           0
  cast(sub2, Category ~ Post.Month, mean, value='Paid')
                                                                                      6
  Category
7
           1 0.3333333 0.1666667 0.2580645 0.3181818 0.2000000 0.31578947 0.500
1
0000
           2
                      NA 1.0000000 0.0000000 0.6000000 0.0000000 0.09090909 0.391
3043
           3 0.1333333 0.2727273 0.0000000 0.4347826 0.3043478 0.31578947 0.230
7692
                                    10
                                                11
1 0.2222222 0.1111111 0.1891892 0.4242424 0.37500000 2 0.3571429 0.2777778 0.2857143 0.0000000 0.09090909
3 0.2727273 0.5555556 0.1111111 0.1428571 0.16666667
```