exploring-redhat-data

August 14, 2016

To generate output run rmarkdown::render('exploring_redhat_data.Rmd', output_file = 'markdown/exploring_redhat.html')

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

read data

```
library(data.table)
activities_raw <- fread('../data/raw/act_train.csv')

##
Read 2.7% of 2197291 rows
Read 23.2% of 2197291 rows
Read 44.1% of 2197291 rows
Read 65.5% of 2197291 rows
Read 87.8% of 2197291 rows
Read 2197291 rows and 15 (of 15) columns from 0.131 GB file in 00:00:07

people_raw <- fread('../data/raw/people.csv')</pre>
```

summary(activities_raw)

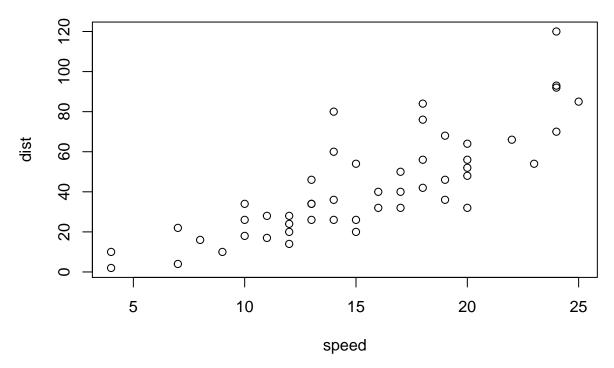
```
##
     people_id
                       activity_id
                                               date
##
    Length:2197291
                       Length:2197291
                                           Length:2197291
    Class :character
                       Class :character
                                           Class : character
                                           Mode :character
##
    Mode :character
                       Mode :character
##
##
##
##
    activity_category
                                              char 2
                          char_1
   Length:2197291
                                           Length:2197291
                       Length:2197291
##
    Class : character
                       Class : character
                                           Class : character
##
##
    Mode :character
                       Mode :character
                                           Mode :character
##
##
##
                          char_4
##
                                              char_5
       char_3
##
    Length:2197291
                       Length:2197291
                                           Length:2197291
##
    Class :character
                       Class :character
                                           Class : character
##
    Mode :character
                       Mode :character
                                           Mode :character
##
##
##
##
                          char 7
                                              char 8
       char 6
##
   Length:2197291
                       Length:2197291
                                           Length:2197291
                       Class : character
                                           Class : character
    Class :character
                       Mode :character
   Mode :character
                                           Mode : character
```

```
##
##
##
##
       char_9
                          char_10
                                               outcome
##
    Length:2197291
                        Length:2197291
                                            Min.
                                                   :0.000
    Class : character
                        Class : character
                                            1st Qu.:0.000
    Mode :character
                        Mode :character
                                            Median : 0.000
##
                                            Mean
                                                   :0.444
##
                                            3rd Qu.:1.000
##
                                            Max.
                                                   :1.000
summary(people_raw)
##
     people_id
                           char_1
                                              group_1
    Length: 189118
                        Length: 189118
                                            Length: 189118
    Class :character
                        Class :character
                                            Class : character
    Mode :character
                        Mode : character
                                            Mode :character
##
##
##
##
                                               char_3
       char 2
                            date
##
    Length: 189118
                        Length: 189118
                                            Length: 189118
    Class :character
                        Class :character
                                            Class : character
                        Mode :character
                                            Mode :character
    Mode :character
##
##
##
##
                           char_5
                                               char_6
##
       char_4
##
    Length:189118
                        Length: 189118
                                            Length: 189118
    Class :character
                        Class : character
                                            Class : character
##
    Mode :character
                        Mode :character
                                            Mode :character
##
##
##
##
                           char_8
                                               char_9
                                                                 char_10
       char_7
##
    Length: 189118
                        Length: 189118
                                            Length: 189118
                                                                Mode :logical
    Class : character
                        Class : character
                                            Class : character
                                                                FALSE: 141660
    Mode :character
                        Mode :character
                                            Mode :character
                                                                TRUE: 47458
##
                                                                NA's :0
##
##
                                                       char_14
##
     char_11
                      char_12
                                       char_13
##
    Mode :logical
                                     Mode :logical
                                                      Mode :logical
                     Mode :logical
##
    FALSE: 148363
                     FALSE:143664
                                     FALSE: 120076
                                                      FALSE: 139985
##
   TRUE :40755
                     TRUE :45454
                                     TRUE :69042
                                                      TRUE: 49133
##
   NA's :0
                     NA's :0
                                     NA's :0
                                                      NA's :0
##
##
##
     char 15
                      char 16
                                       char_17
                                                       char 18
                     Mode :logical
                                     Mode :logical
## Mode :logical
                                                      Mode :logical
   FALSE: 138148
                     FALSE: 135772
                                     FALSE: 133903
                                                      FALSE: 153635
## TRUE :50970
                     TRUE :53346
                                     TRUE :55215
                                                      TRUE :35483
##
   NA's :0
                     NA's :0
                                     NA's :0
                                                      NA's :0
```

##

## ## ## ## ## ##	char_19 Mode :logical FALSE:135284 TRUE :53834 NA's :0	char_20 Mode :logical FALSE:145788 TRUE :43330 NA's :0	char_21 Mode :logical FALSE:135213 TRUE :53905 NA's :0	char_22 Mode :logical FALSE:134074 TRUE :55044 NA's :0
##				
##	char_23	char_24	char_25	char_26
## ##	Mode :logical FALSE:132668	Mode :logical FALSE:153101	Mode :logical FALSE:127128	Mode :logical FALSE:157530
##	TRUE :56450	TRUE :36017	TRUE :61990	TRUE :31588
##	NA's :0	NA's :0	NA's :0	NA's :0
##				
##				
##	char_27	char_28	char_29	char_30
##	Mode :logical	Mode :logical	Mode :logical	Mode :logical
##	FALSE: 144098	FALSE: 134484	FALSE: 157281	FALSE: 149983
## ##	TRUE :45020 NA's :0	TRUE :54634 NA's :0	TRUE :31837 NA's :0	TRUE :39135 NA's :0
##	NA S .U	NA S .U	NA S .U	NA S .U
##				
##	char_31	char_32	char_33	char_34
##	Mode :logical	Mode :logical	Mode :logical	Mode :logical
##	FALSE: 136433	FALSE:135237	FALSE: 147920	FALSE:121701
##	TRUE :52685	TRUE :53881	TRUE :41198	TRUE :67417
##	NA's :0	NA's :0	NA's :0	NA's :0
##				
## ##	char 35	char_36	char 37	char 38
##	Mode :logical	Mode :logical	Mode :logical	Min. : 0.00
##	FALSE: 149351	FALSE: 124118	FALSE: 135134	1st Qu.: 10.00
##	TRUE :39767	TRUE :65000	TRUE :53984	Median : 58.00
##	NA's :0	NA's :0	NA's :0	Mean : 50.33
##				3rd Qu.: 83.00
##				Max. :100.00

You can also embed plots, for example:



Note that the $\mbox{echo} = \mbox{FALSE}$ parameter was added to the code chunk to prevent printing of the R code that generated the plot.