R Notebook

```
library(FactoMineR)
library(MASS)
```

```
data <- read.csv("data/train.csv")
str(data)
```

```
## 'data.frame':    103904 obs. of  25 variables:
##  $ X                               : int  0 1 2 3 4 5 6 7 8 9 ...
##  $ id                              : int  70172 5047 110028 24026 119299 111157 82113 96462 79485 65
##  $ Gender                          : chr  "Male" "Male" "Female" "Female" ...
##  $ Customer.Type                   : chr  "Loyal Customer" "disloyal Customer" "Loyal Customer" "Loy
##  $ Age                             : int  13 25 26 25 61 26 47 52 41 20 ...
##  $ Type.of.Travel                  : chr  "Personal Travel" "Business travel" "Business travel" "Bus
##  $ Class                           : chr  "Eco Plus" "Business" "Business" "Business" ...
##  $ Flight.Distance                 : int  460 235 1142 562 214 1180 1276 2035 853 1061 ...
##  $ Inflight.wifi.service           : int  3 3 2 2 3 3 2 4 1 3 ...
##  $ Departure.Arrival.time.convenient: int  4 2 2 5 3 4 4 3 2 3 ...
##  $ Ease.of.Online.booking          : int  3 3 2 5 3 2 2 4 2 3 ...
##  $ Gate.location                   : int  1 3 2 5 3 1 3 4 2 4 ...
##  $ Food.and.drink                  : int  5 1 5 2 4 1 2 5 4 2 ...
##  $ Online.boarding                 : int  3 3 5 2 5 2 2 5 3 3 ...
##  $ Seat.comfort                    : int  5 1 5 2 5 1 2 5 3 3 ...
##  $ Inflight.entertainment          : int  5 1 5 2 3 1 2 5 1 2 ...
##  $ On.board.service                : int  4 1 4 2 3 3 3 5 1 2 ...
##  $ Leg.room.service                : int  3 5 3 5 4 4 3 5 2 3 ...
##  $ Baggage.handling                : int  4 3 4 3 4 4 4 5 1 4 ...
##  $ Checkin.service                 : int  4 1 4 1 3 4 3 4 4 4 ...
##  $ Inflight.service                : int  5 4 4 4 3 4 5 5 1 3 ...
##  $ Cleanliness                     : int  5 1 5 2 3 1 2 4 2 2 ...
##  $ Departure.Delay.in.Minutes      : int  25 1 0 11 0 0 9 4 0 0 ...
##  $ Arrival.Delay.in.Minutes        : num  18 6 0 9 0 0 23 0 0 0 ...
##  $ satisfaction                    : chr  "neutral or dissatisfied" "neutral or dissatisfied" "satis
```