testing_table

Luxin Wang

December 1, 2018

```
wine<-read.csv("wine_sample.csv", header=TRUE)
summary(wine[,-1])
```

```
fixed.acidity volatile.acidity citric.acid residual.sugar
Min. : 4.500 Min. :0.1000 Min. :0.0000 Min. : 0.700
1st Qu.: 6.400 1st Qu.:0.2300 1st Qu.:0.2400 1st Qu.: 1.800
Median : 7.000 Median :0.3000 Median :0.3000 Median : 2.900
Mean : 7.178 Mean :0.3413 Mean :0.3157 Mean : 5.441
3rd Qu.: 7.600 3rd Qu.:0.4100 3rd Qu.:0.3900 3rd Qu.: 8.400
Max. :13.700 Max. :1.3300 Max. :1.0000 Max. :26.050
chlorides free.sulfur.dioxide total.sulfur.dioxide Min. :0.01200 Min. : 1.00 Min. : 7.0
1st Qu.:0.03700 1st Qu.: 17.00 1st Qu.: 76.0
Median :0.04700 Median : 29.00 Median :117.0
Mean :0.05578 Mean : 30.65 Mean :114.9
3rd Qu.:0.06300 3rd Qu.: 42.00 3rd Qu.:155.0
Max. :0.61100 Max. :146.50 Max. :344.0
density pH sulphates alcohol
Min. :0.9871 Min. :2.830 Min. :0.2500 Min. : 8.00
1st Qu.:0.9922 1st Qu.:3.100 1st Qu.:0.4300 1st Qu.: 9.50
Median :0.9950 Median :3.210 Median :0.5000 Median :10.25
Mean :0.9947 Mean :3.215 Mean :0.5245 Mean :10.47
3rd Qu.:0.9970 3rd Qu.:3.320 3rd Qu.:0.6000 3rd Qu.:11.30
Max. :1.0030 Max. :3.850 Max. :1.3600 Max. :14.05
quality type
Min. :3.000 red :243
1st Qu.:5.000 white:757
Median :6.000
Mean :5.803
3rd Qu.:6.000
Max. :8.000
```

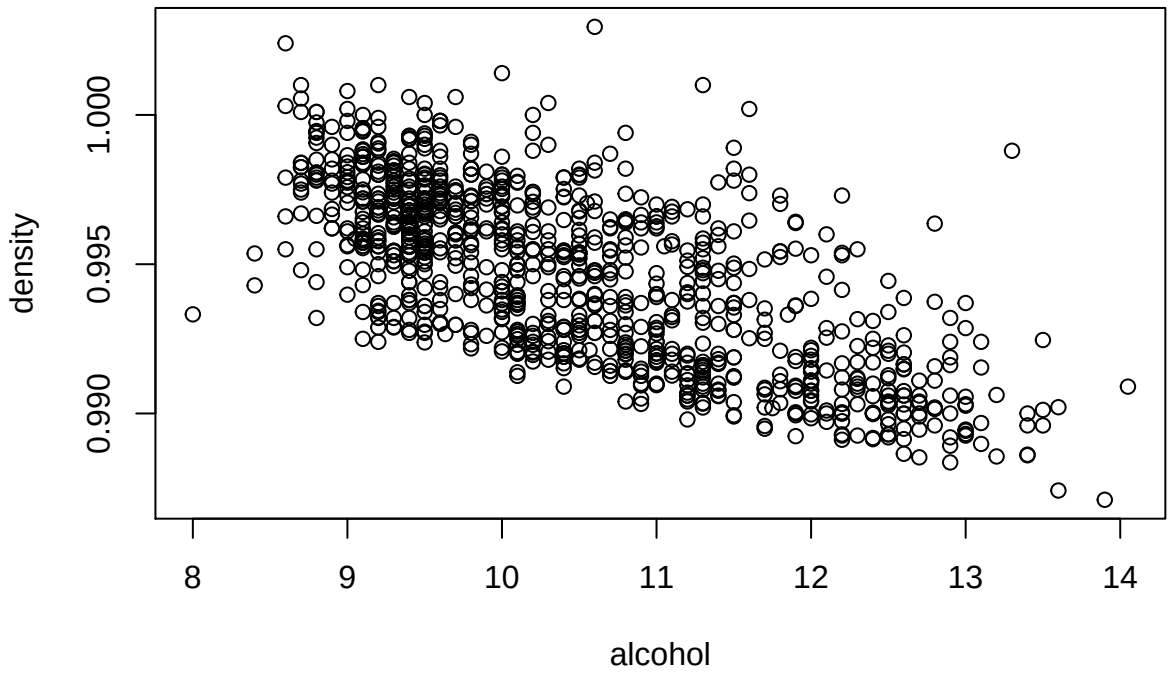
```
attach(wine)

# mytable <- table(quality) # A will be rows, B will be columns
#
#
library(xtable)
#
# result<-xtable(mytable)
# print(result,type="html",comment=FALSE,scalebox = 0.7)
#
# mytable

#density has -0.7 with alcohol
library(car)
```

```
## Loading required package: carData
```

```r
plot(density~alcohol)
```




```r
vif(lm(quality~.-X-quality, data=wine)) #remove density
```

```
   fixed.acidity     volatile.acidity          citric.acid
        5.038085             2.117706            1.594776
  residual.sugar            chlorides  free.sulfur.dioxide
       10.703961             1.632031            2.379735
```

total.sulfur.dioxide density pH 3.968047 25.061323 2.725188 sulphates alcohol type 1.606350 6.607306 7.629401

```r
vif<-vif(lm(quality~.-X-density-quality, data=wine))

vif<-as.data.frame(vif)
vif<-xtable(vif,auto=TRUE)
print(vif,type="latex",comment=FALSE)
```

	vif
fixed.acidity	2.2340014
volatile.acidity	2.0886854
citric.acid	1.5946794
residual.sugar	1.5232952
chlorides	1.6264406
free.sulfur.dioxide	2.3709038
total.sulfur.dioxide	3.8884540
pH	1.7052608
sulphates	1.4975886
alcohol	1.4091722
type	4.8899117