```
mydata<-read.table('/home/bruce/Desktop/data_exercise/stupaper.csv',sep=',',header = TRUE,stringsAsFacto
#mydata<-read.csv(file = )
```

jj

```
hdata<-mydata[,3:5]
st_data<-scale(hdata)
mydata['StuScore']<-st_data
```

row for mean of all the st_data instead of the mean().

```
mydata$StuScore<-rowMeans(st_data)
mydata$StuScore
```

```
##  [1]  0.2197018 -1.0018971  0.2067441 -0.3800513 -0.2990692  0.7824566
##  [7]  0.5577847 -1.4179240 -0.1006553  1.4329097
```

```
temp <- quantile(mydata$StuScore,c(0.2,0.4,0.6,0.8))
temp[1:4]
```

```
##        20%        40%        60%        80%
## -0.5044205 -0.1800208  0.2119272  0.6027191
```

```
h<- 1
score_class<- c()
while(h<11){
  if (mydata$StuScore[h]<temp[1]){
    score_class[h] <- 'e'}
  else if (mydata$StuScore[h]<temp[2]){
    score_class[h] <- 'd'}
  else if (mydata$StuScore[h]<temp[3]){
    score_class[h] <- 'c'}
  else if (mydata$StuScore[h]<temp[4]){
    score_class[h] <- 'b'}
  else
  {
     score_class[h] <-'a'
    }
  h <- h+1
}
mydata$score_class<- score_class
mydata
```

```
##    StuId         StuName Math Science English   StuScore score_class
## 1      1      John?Davis  502      95      25  0.2197018           b
## 2      2 Angela?Williams  465      67      12 -1.0018971           e
## 3      3      Bull?Jones  621      78      22  0.2067441           c
## 4      4  Cheryl?Cushing  575      66      18 -0.3800513           d
## 5      5  Reuven?Ytzrhak  454      96      15 -0.2990692           d
## 6      6       Joel?Knox  634      89      30  0.7824566           a
## 7      7    Mary?Rayburn  576      78      37  0.5577847           b
```

```
## 8      8    Greg?England  421      56      12 -1.4179240           e
## 9      9       Brad?Tmac  599      68      22 -0.1006553           c
## 10    10   Tracy?Mcgrady  666     100      38  1.4329097           a
```

```
other_data<- read.csv("/home/bruce/Desktop/data_exercise/stupaper.csv")
rm("other_data")
```

```
name<-strsplit(mydata$StuName,"\\?")
first_name<- c()
last_name<- c()
name[[1]][2]
```

```
## [1] "Davis"
```

```
name
```

```
## [[1]]
## [1] "John"  "Davis"
##
## [[2]]
## [1] "Angela"   "Williams"
##
## [[3]]
## [1] "Bull"  "Jones"
##
## [[4]]
## [1] "Cheryl"  "Cushing"
##
## [[5]]
## [1] "Reuven"  "Ytzrhak"
##
## [[6]]
## [1] "Joel" "Knox"
##
## [[7]]
## [1] "Mary"    "Rayburn"
##
## [[8]]
## [1] "Greg"    "England"
##
## [[9]]
## [1] "Brad" "Tmac"
##
## [[10]]
## [1] "Tracy"   "Mcgrady"
```

```
for(i in 1:nrow(mydata)){
  mydata$first_name1[i]<-name[[i]][1]
  mydata$last_name1[i]<-name[[i]][2]
}

mydata
```

```
##    StuId         StuName Math Science English   StuScore score_class
## 1      1      John?Davis  502      95      25  0.2197018           b
## 2      2 Angela?Williams  465      67      12 -1.0018971           e
## 3      3      Bull?Jones  621      78      22  0.2067441           c
```

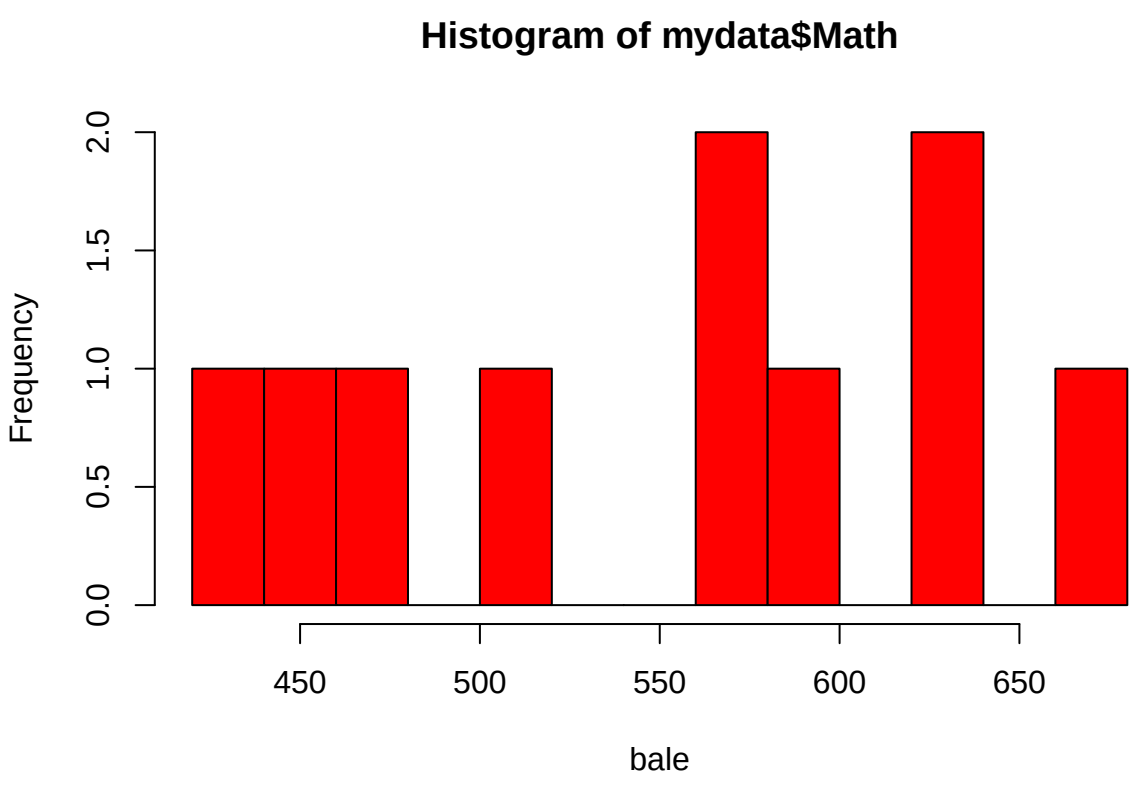
```
## 4      4  Cheryl?Cushing  575      66      18 -0.3800513          d
## 5      5  Reuven?Ytzrhak  454      96      15 -0.2990692          d
## 6      6       Joel?Knox  634      89      30  0.7824566          a
## 7      7    Mary?Rayburn  576      78      37  0.5577847          b
## 8      8    Greg?England  421      56      12 -1.4179240          e
## 9      9       Brad?Tmac  599      68      22 -0.1006553          c
## 10    10   Tracy?Mcgrady  666     100      38  1.4329097          a
##    first_name1 last_name1
## 1         John      Davis
## 2       Angela   Williams
## 3         Bull      Jones
## 4       Cheryl    Cushing
## 5       Reuven    Ytzrhak
## 6         Joel       Knox
## 7         Mary    Rayburn
## 8         Greg    England
## 9         Brad       Tmac
## 10       Tracy    Mcgrady
```

```
mydata$FirstName<-sapply(name,'[',1)
mydata$LastName<-sapply(name,'[',2)
```

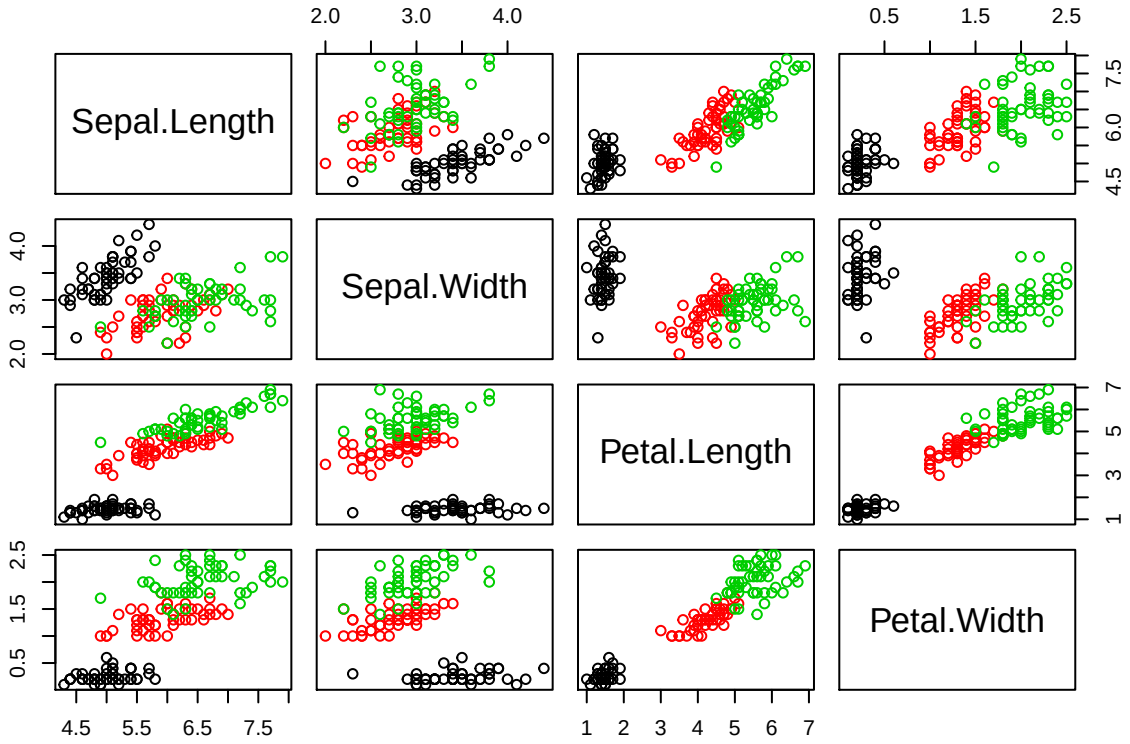
```
adata<-mydata
ncol(adata)
```

```
## [1] 11
```

```
hist(mydata$Math,breaks = 12,col = 'red',xlab = 'bale')
```



```r
plot(iris[,-5],col=iris$Species)
```




```r
iris
```

```
##     Sepal.Length Sepal.Width Petal.Length Petal.Width    Species
## 1            5.1         3.5          1.4         0.2     setosa
## 2            4.9         3.0          1.4         0.2     setosa
## 3            4.7         3.2          1.3         0.2     setosa
## 4            4.6         3.1          1.5         0.2     setosa
## 5            5.0         3.6          1.4         0.2     setosa
## 6            5.4         3.9          1.7         0.4     setosa
## 7            4.6         3.4          1.4         0.3     setosa
## 8            5.0         3.4          1.5         0.2     setosa
## 9            4.4         2.9          1.4         0.2     setosa
## 10           4.9         3.1          1.5         0.1     setosa
## 11           5.4         3.7          1.5         0.2     setosa
## 12           4.8         3.4          1.6         0.2     setosa
## 13           4.8         3.0          1.4         0.1     setosa
## 14           4.3         3.0          1.1         0.1     setosa
## 15           5.8         4.0          1.2         0.2     setosa
## 16           5.7         4.4          1.5         0.4     setosa
## 17           5.4         3.9          1.3         0.4     setosa
## 18           5.1         3.5          1.4         0.3     setosa
## 19           5.7         3.8          1.7         0.3     setosa
## 20           5.1         3.8          1.5         0.3     setosa
## 21           5.4         3.4          1.7         0.2     setosa
## 22           5.1         3.7          1.5         0.4     setosa
## 23           4.6         3.6          1.0         0.2     setosa
## 24           5.1         3.3          1.7         0.5     setosa
## 25           4.8         3.4          1.9         0.2     setosa
## 26           5.0         3.0          1.6         0.2     setosa
```

```
## 27          5.0         3.4          1.6         0.4     setosa
## 28          5.2         3.5          1.5         0.2     setosa
## 29          5.2         3.4          1.4         0.2     setosa
## 30          4.7         3.2          1.6         0.2     setosa
## 31          4.8         3.1          1.6         0.2     setosa
## 32          5.4         3.4          1.5         0.4     setosa
## 33          5.2         4.1          1.5         0.1     setosa
## 34          5.5         4.2          1.4         0.2     setosa
## 35          4.9         3.1          1.5         0.2     setosa
## 36          5.0         3.2          1.2         0.2     setosa
## 37          5.5         3.5          1.3         0.2     setosa
## 38          4.9         3.6          1.4         0.1     setosa
## 39          4.4         3.0          1.3         0.2     setosa
## 40          5.1         3.4          1.5         0.2     setosa
## 41          5.0         3.5          1.3         0.3     setosa
## 42          4.5         2.3          1.3         0.3     setosa
## 43          4.4         3.2          1.3         0.2     setosa
## 44          5.0         3.5          1.6         0.6     setosa
## 45          5.1         3.8          1.9         0.4     setosa
## 46          4.8         3.0          1.4         0.3     setosa
## 47          5.1         3.8          1.6         0.2     setosa
## 48          4.6         3.2          1.4         0.2     setosa
## 49          5.3         3.7          1.5         0.2     setosa
## 50          5.0         3.3          1.4         0.2     setosa
## 51          7.0         3.2          4.7         1.4 versicolor
## 52          6.4         3.2          4.5         1.5 versicolor
## 53          6.9         3.1          4.9         1.5 versicolor
## 54          5.5         2.3          4.0         1.3 versicolor
## 55          6.5         2.8          4.6         1.5 versicolor
## 56          5.7         2.8          4.5         1.3 versicolor
## 57          6.3         3.3          4.7         1.6 versicolor
## 58          4.9         2.4          3.3         1.0 versicolor
## 59          6.6         2.9          4.6         1.3 versicolor
## 60          5.2         2.7          3.9         1.4 versicolor
## 61          5.0         2.0          3.5         1.0 versicolor
## 62          5.9         3.0          4.2         1.5 versicolor
## 63          6.0         2.2          4.0         1.0 versicolor
## 64          6.1         2.9          4.7         1.4 versicolor
## 65          5.6         2.9          3.6         1.3 versicolor
## 66          6.7         3.1          4.4         1.4 versicolor
## 67          5.6         3.0          4.5         1.5 versicolor
## 68          5.8         2.7          4.1         1.0 versicolor
## 69          6.2         2.2          4.5         1.5 versicolor
## 70          5.6         2.5          3.9         1.1 versicolor
## 71          5.9         3.2          4.8         1.8 versicolor
## 72          6.1         2.8          4.0         1.3 versicolor
## 73          6.3         2.5          4.9         1.5 versicolor
## 74          6.1         2.8          4.7         1.2 versicolor
## 75          6.4         2.9          4.3         1.3 versicolor
## 76          6.6         3.0          4.4         1.4 versicolor
## 77          6.8         2.8          4.8         1.4 versicolor
## 78          6.7         3.0          5.0         1.7 versicolor
## 79          6.0         2.9          4.5         1.5 versicolor
## 80          5.7         2.6          3.5         1.0 versicolor
```

```
## 81          5.5         2.4          3.8         1.1 versicolor
## 82          5.5         2.4          3.7         1.0 versicolor
## 83          5.8         2.7          3.9         1.2 versicolor
## 84          6.0         2.7          5.1         1.6 versicolor
## 85          5.4         3.0          4.5         1.5 versicolor
## 86          6.0         3.4          4.5         1.6 versicolor
## 87          6.7         3.1          4.7         1.5 versicolor
## 88          6.3         2.3          4.4         1.3 versicolor
## 89          5.6         3.0          4.1         1.3 versicolor
## 90          5.5         2.5          4.0         1.3 versicolor
## 91          5.5         2.6          4.4         1.2 versicolor
## 92          6.1         3.0          4.6         1.4 versicolor
## 93          5.8         2.6          4.0         1.2 versicolor
## 94          5.0         2.3          3.3         1.0 versicolor
## 95          5.6         2.7          4.2         1.3 versicolor
## 96          5.7         3.0          4.2         1.2 versicolor
## 97          5.7         2.9          4.2         1.3 versicolor
## 98          6.2         2.9          4.3         1.3 versicolor
## 99          5.1         2.5          3.0         1.1 versicolor
## 100         5.7         2.8          4.1         1.3 versicolor
## 101         6.3         3.3          6.0         2.5  virginica
## 102         5.8         2.7          5.1         1.9  virginica
## 103         7.1         3.0          5.9         2.1  virginica
## 104         6.3         2.9          5.6         1.8  virginica
## 105         6.5         3.0          5.8         2.2  virginica
## 106         7.6         3.0          6.6         2.1  virginica
## 107         4.9         2.5          4.5         1.7  virginica
## 108         7.3         2.9          6.3         1.8  virginica
## 109         6.7         2.5          5.8         1.8  virginica
## 110         7.2         3.6          6.1         2.5  virginica
## 111         6.5         3.2          5.1         2.0  virginica
## 112         6.4         2.7          5.3         1.9  virginica
## 113         6.8         3.0          5.5         2.1  virginica
## 114         5.7         2.5          5.0         2.0  virginica
## 115         5.8         2.8          5.1         2.4  virginica
## 116         6.4         3.2          5.3         2.3  virginica
## 117         6.5         3.0          5.5         1.8  virginica
## 118         7.7         3.8          6.7         2.2  virginica
## 119         7.7         2.6          6.9         2.3  virginica
## 120         6.0         2.2          5.0         1.5  virginica
## 121         6.9         3.2          5.7         2.3  virginica
## 122         5.6         2.8          4.9         2.0  virginica
## 123         7.7         2.8          6.7         2.0  virginica
## 124         6.3         2.7          4.9         1.8  virginica
## 125         6.7         3.3          5.7         2.1  virginica
## 126         7.2         3.2          6.0         1.8  virginica
## 127         6.2         2.8          4.8         1.8  virginica
## 128         6.1         3.0          4.9         1.8  virginica
## 129         6.4         2.8          5.6         2.1  virginica
## 130         7.2         3.0          5.8         1.6  virginica
## 131         7.4         2.8          6.1         1.9  virginica
## 132         7.9         3.8          6.4         2.0  virginica
## 133         6.4         2.8          5.6         2.2  virginica
## 134         6.3         2.8          5.1         1.5  virginica
```

```
## 135          6.1         2.6          5.6         1.4  virginica
## 136          7.7         3.0          6.1         2.3  virginica
## 137          6.3         3.4          5.6         2.4  virginica
## 138          6.4         3.1          5.5         1.8  virginica
## 139          6.0         3.0          4.8         1.8  virginica
## 140          6.9         3.1          5.4         2.1  virginica
## 141          6.7         3.1          5.6         2.4  virginica
## 142          6.9         3.1          5.1         2.3  virginica
## 143          5.8         2.7          5.1         1.9  virginica
## 144          6.8         3.2          5.9         2.3  virginica
## 145          6.7         3.3          5.7         2.5  virginica
## 146          6.7         3.0          5.2         2.3  virginica
## 147          6.3         2.5          5.0         1.9  virginica
## 148          6.5         3.0          5.2         2.0  virginica
## 149          6.2         3.4          5.4         2.3  virginica
## 150          5.9         3.0          5.1         1.8  virginica
```

```
x<-barplot(mydata$Math,main='Math Score',names.arg = mydata$FirstName)
text(x,mydata$Math+25,format(mydata$Math),,xpd=TRUE,col='red')
```