Quantitative Research Methods:history 1

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Contents

1 history 1 for QRM

show the name of dataset: using Wages.xls

```
# history1.R 6 Oct 2016
# using Wages.xls
```

1.1 import data

1st step importing from xls or use copy function

```
#bug=read.table("clipboard",header=TRUE)<---this is for windows
#bug=read.table(pipe("pbpaste"),header=TRUE)#<- this is for macos
bug=read.csv("/Users/sn0wfree/Dropbox/PhD(1st)/BST 215Quantitative Research Methods term 1/r code/Wages
```

1.2 watch part of data

```
head(bug)#<- watch top 6 rows
```

```
##   Education      South Gender Experience     Union  Wage Age     Race
## 1         8 Not_South Female         21 Non_Union  5.10  35 Hispanic
## 2         9 Not_South Female         42 Non_Union  4.95  57    White
## 3        12 Not_South   Male          1 Non_Union  6.67  19    White
## 4        12 Not_South   Male          4 Non_Union  4.00  22    White
## 5        12 Not_South   Male         17 Non_Union  7.50  35    White
## 6        13 Not_South   Male          9     Union 13.07  28    White
##   Occupation        Sector  Married
## 1      Other Manufacturing  Married
```

```
## 2      Other Manufacturing   Married
## 3      Other Manufacturing Unmarried
## 4      Other        Other Unmarried
## 5      Other        Other   Married
## 6      Other        Other Unmarried
```

```r
str(bug)#<- see the data frame for each variables
```

```
## 'data.frame':    534 obs. of  11 variables:
##  $ Education : int  8 9 12 12 12 13 10 12 16 12 ...
##  $ South     : Factor w/ 2 levels "Not_South","South": 1 1 1 1 1 1 1 2 1 1 1 ...
##  $ Gender    : Factor w/ 2 levels "Female","Male": 1 1 2 2 2 2 2 2 2 2 ...
##  $ Experience: int  21 42 1 4 17 9 27 9 11 9 ...
##  $ Union     : Factor w/ 2 levels "Non_Union","Union": 1 1 1 1 1 2 1 1 1 1 ...
##  $ Wage      : num  5.1 4.95 6.67 4 7.5 ...
##  $ Age       : int  35 57 19 22 35 28 43 27 33 27 ...
##  $ Race      : Factor w/ 3 levels "Hispanic","Other",..: 1 3 3 3 3 3 3 3 3 3 ...
##  $ Occupation: Factor w/ 6 levels "Clerical","Management",..: 3 3 3 3 3 3 3 3 3 3 ...
##  $ Sector    : Factor w/ 3 levels "Construction",..: 2 2 2 3 3 3 3 3 3 2 3 ...
##  $ Married   : Factor w/ 2 levels "Married","Unmarried": 1 1 2 2 1 2 2 2 1 2 ...
```

```r
colnames(bug)#<- show the name of columns:which means show the labels or variables name
```

```
##  [1] "Education"  "South"      "Gender"     "Experience" "Union"
##  [6] "Wage"       "Age"        "Race"       "Occupation" "Sector"
## [11] "Married"
```

1.3   some statistical number

```r
mean(bug$Age)
```

```
## [1] 36.83333
```

```r
sd(bug$Age)
```

```
## [1] 11.72657
```
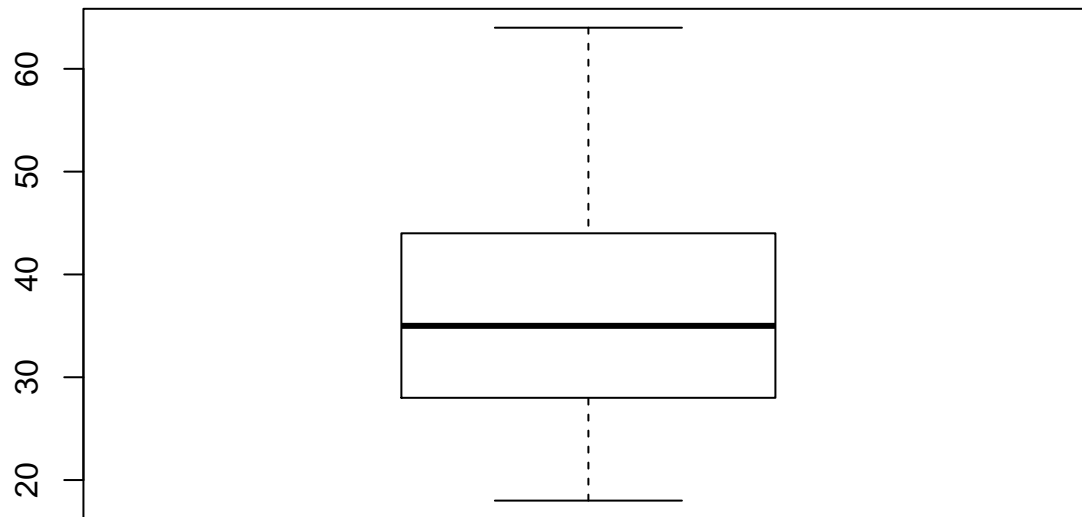
```r
median(bug$Age)
```

```
## [1] 35
```

1.4   attach?

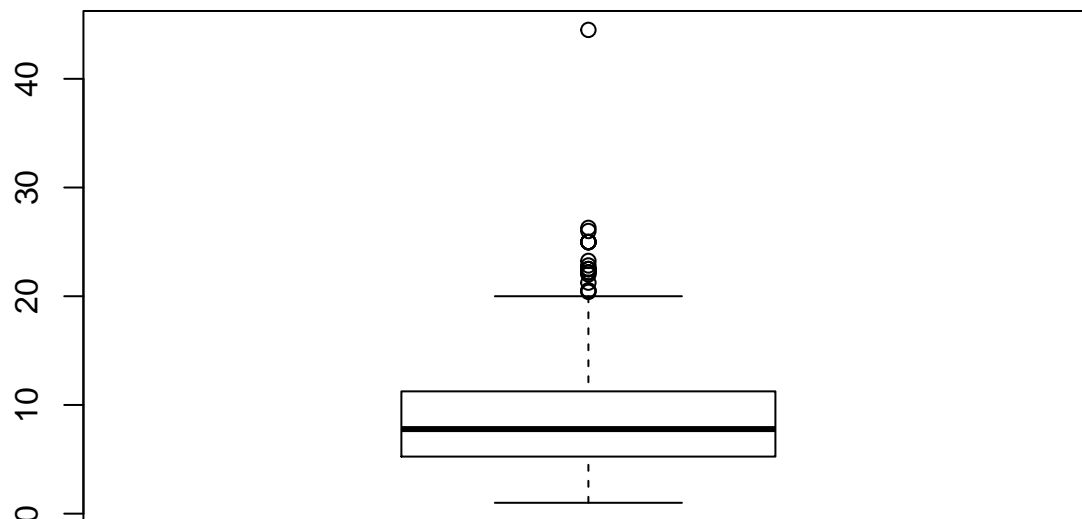attach the dataset is just for saving time when type in some variables
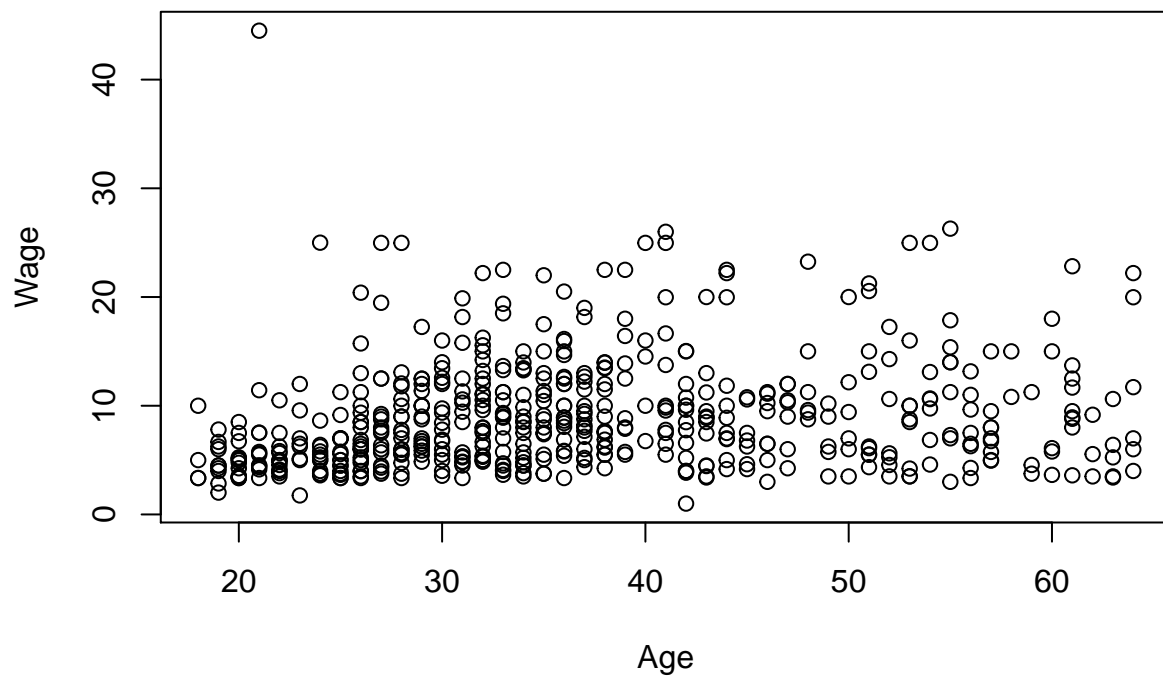
```
attach(bug)
```
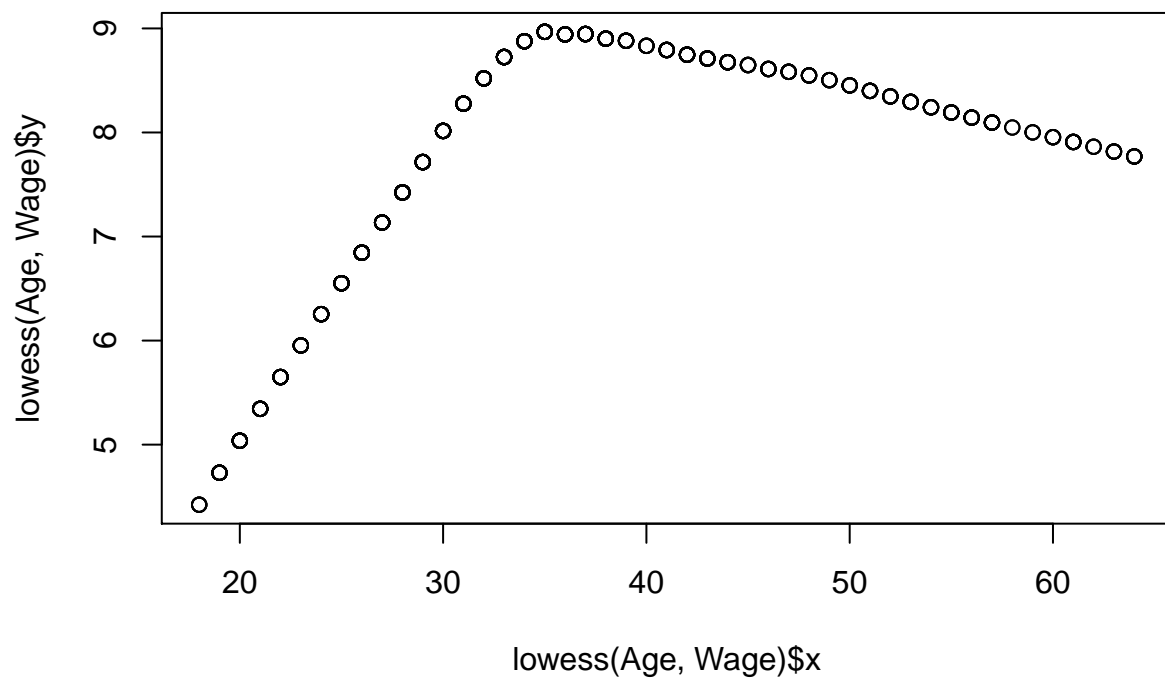
1.5   plot some graphes-1
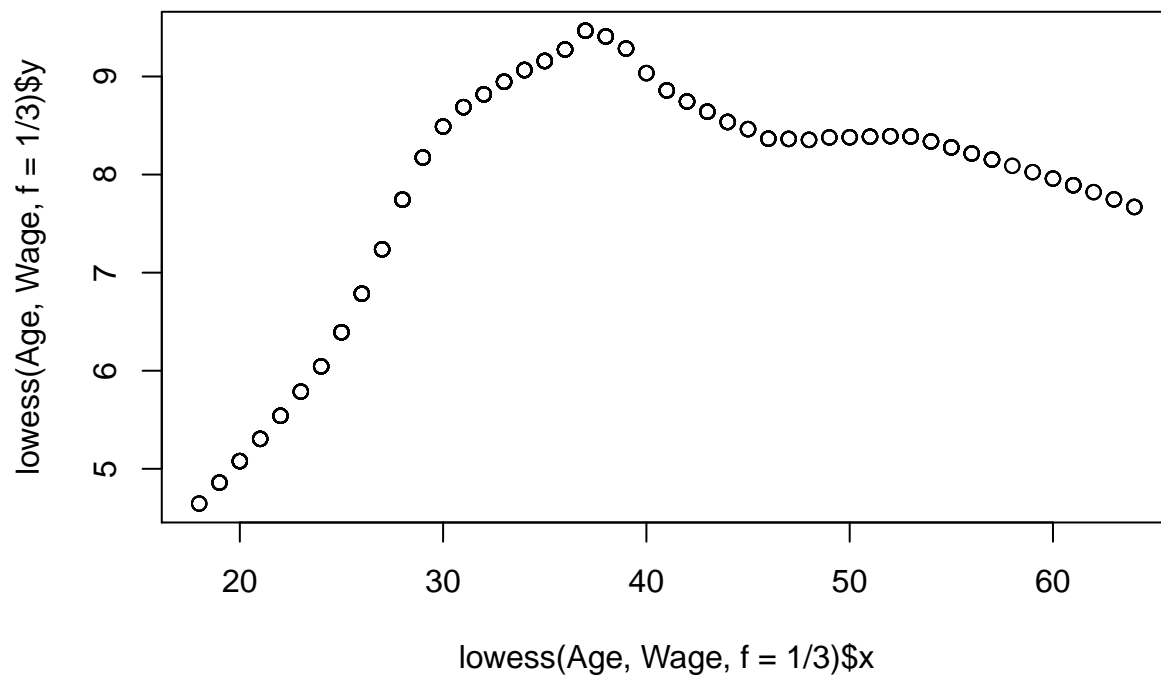
```
boxplot(Age)
```

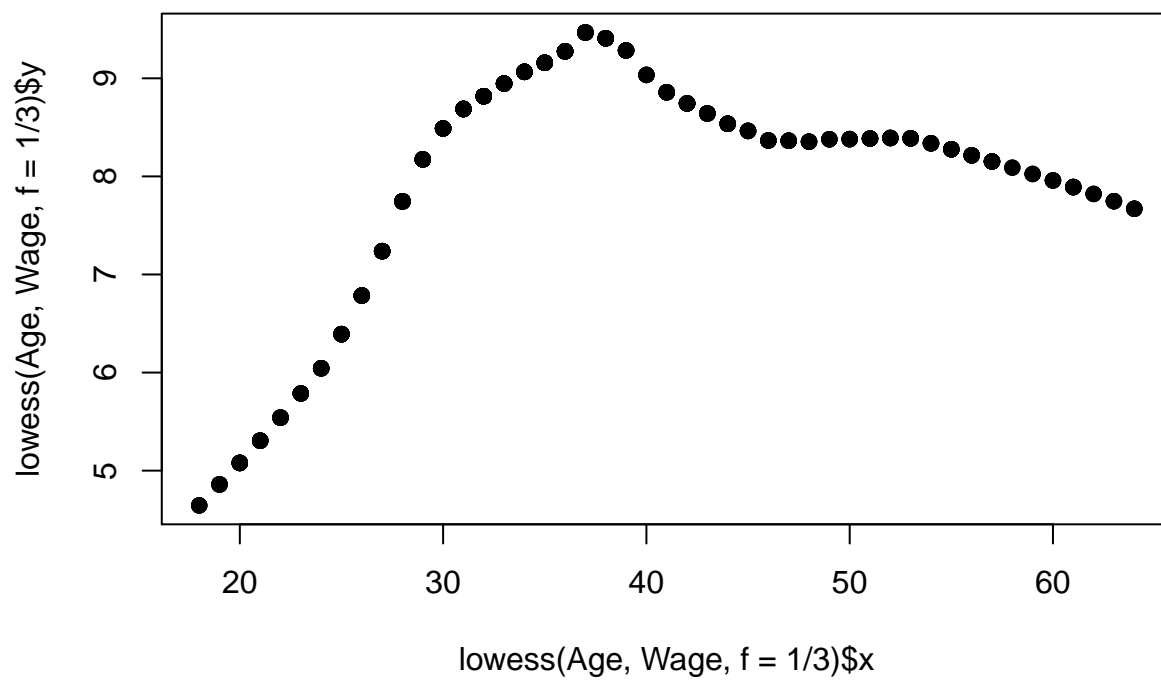

```
boxplot(Wage)
```
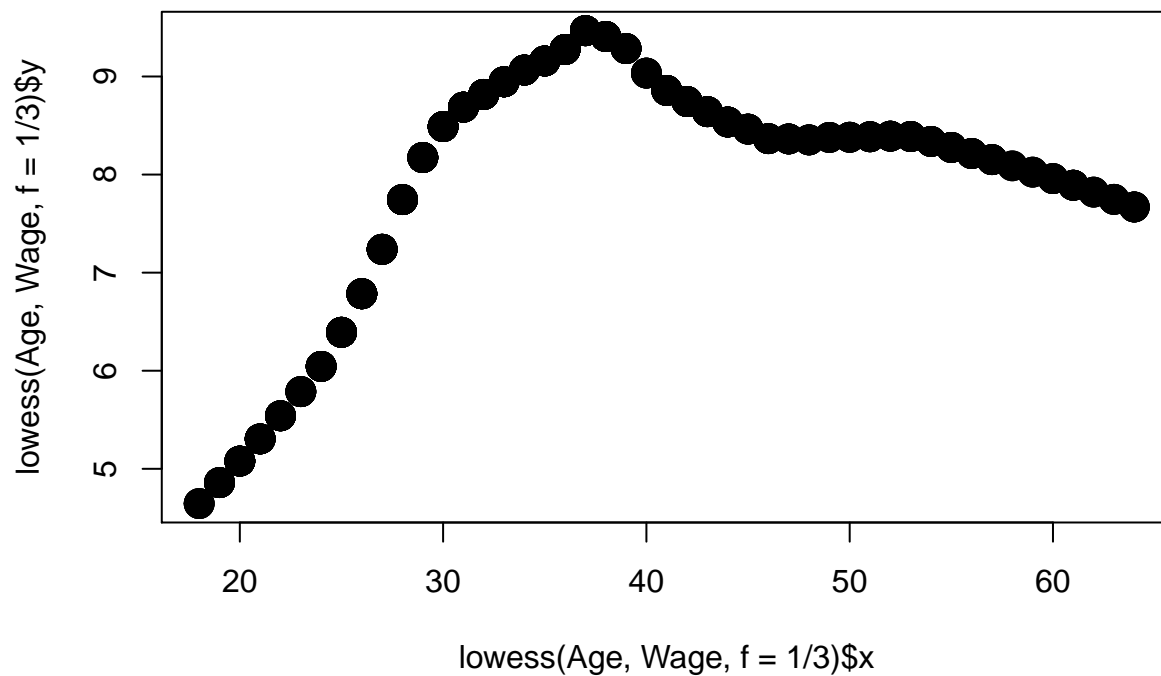


```
plot(Age,Wage)
```

```
plot(lowess(Age,Wage))
```



```
plot(lowess(Age,Wage,f=1/3))
```
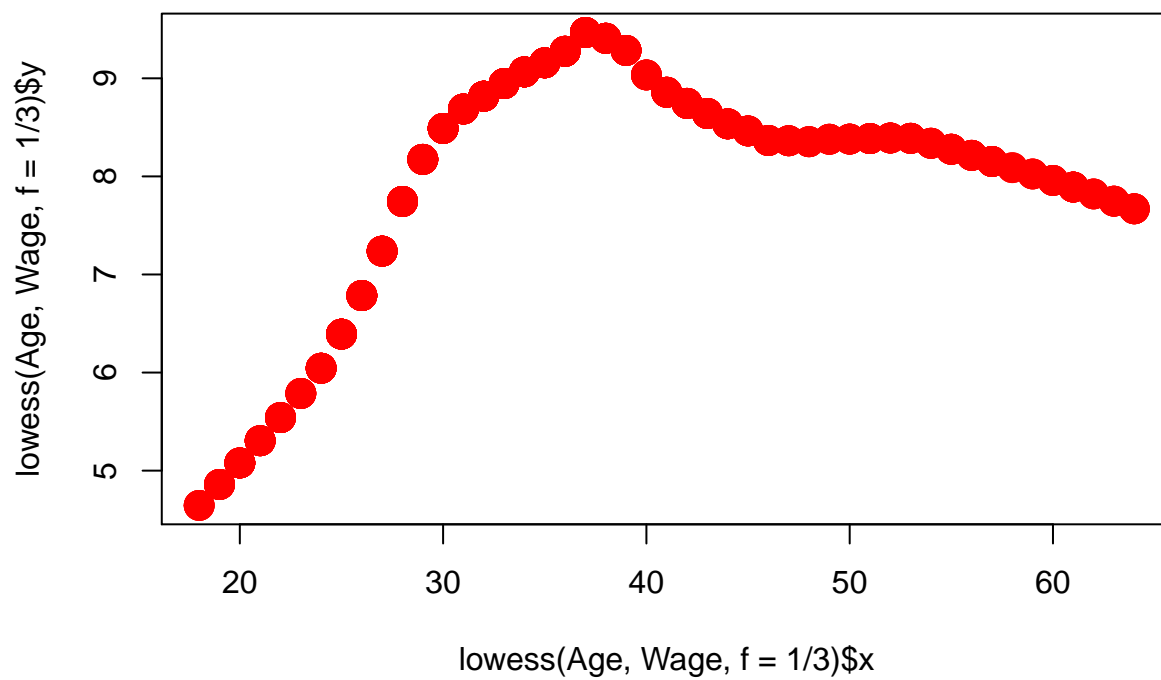
4

```r
plot(lowess(Age,Wage,f=1/3),pch=19)
```



```r
plot(lowess(Age,Wage,f=1/3),pch=19,cex=2)
```
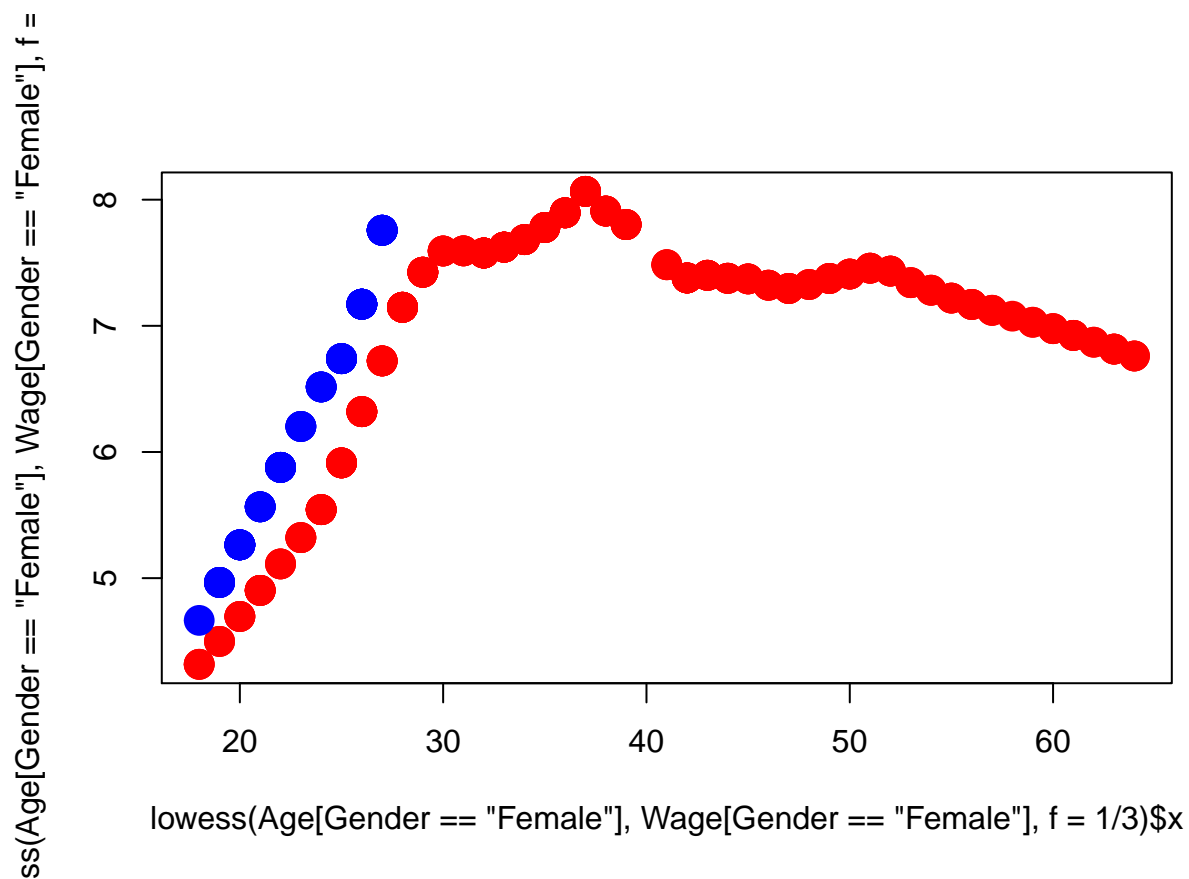
```
plot(lowess(Age,Wage,f=1/3),pch=19,cex=2,col="red")
```


1.6 plot some graphes-2

```
plot(lowess(Age[Gender=="Female"],Wage[Gender=="Female"],f=1/3),pch=19,cex=2,col="red")#<lowess:Scatter

points(lowess(Age[Gender=="Male"],Wage[Gender=="Male"],f=1/3),pch=19,cex=2,col="blue")
```

ss(Age[Gender == "Female"], Wage[Gender == "Female"], f =

lowess(Age[Gender == "Female"], Wage[Gender == "Female"], f = 1/3)$x

```r
#plot(c(15,65),c(0,12))
plot(c(15,65),c(0,12),col="white")
points(lowess(Age[Gender=="Male"],Wage[Gender=="Male"],f=1/3),pch=19,cex=2,col="blue")
points(lowess(Age[Gender=="Female"],Wage[Gender=="Female"],f=1/3),pch=19,cex=2,col="red")
```