Script_correlacion.R

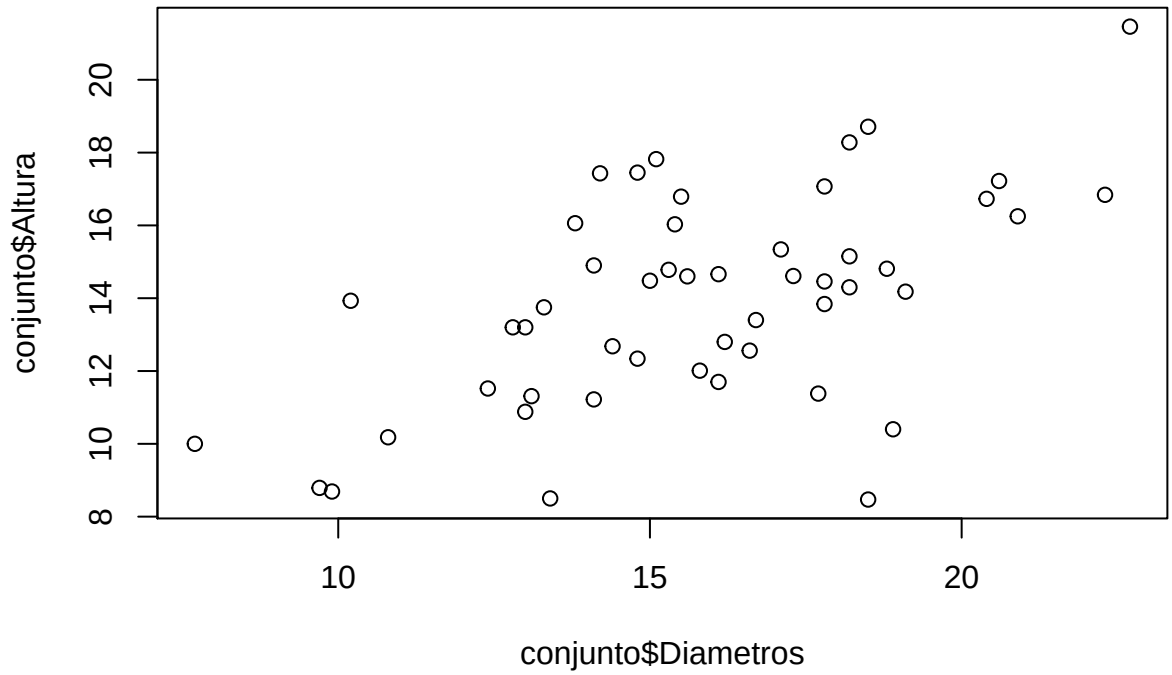
marco

2021-03-18

```
# Marco
# Ejercicio de correlación

conjunto <- read.csv("cuadro1.csv", header = TRUE)


plot(conjunto$Diametros, conjunto$Altura)
```




```
cor.test(conjunto$Diametros, conjunto$Altura)
```

```
##
##  Pearson's product-moment correlation
##
## data:  conjunto$Diametros and conjunto$Altura
## t = 4.7755, df = 48, p-value = 1.724e-05
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.3434347 0.7304827
## sample estimates:
##       cor
## 0.5675298
```

```r
data("iris")

head(iris)
```

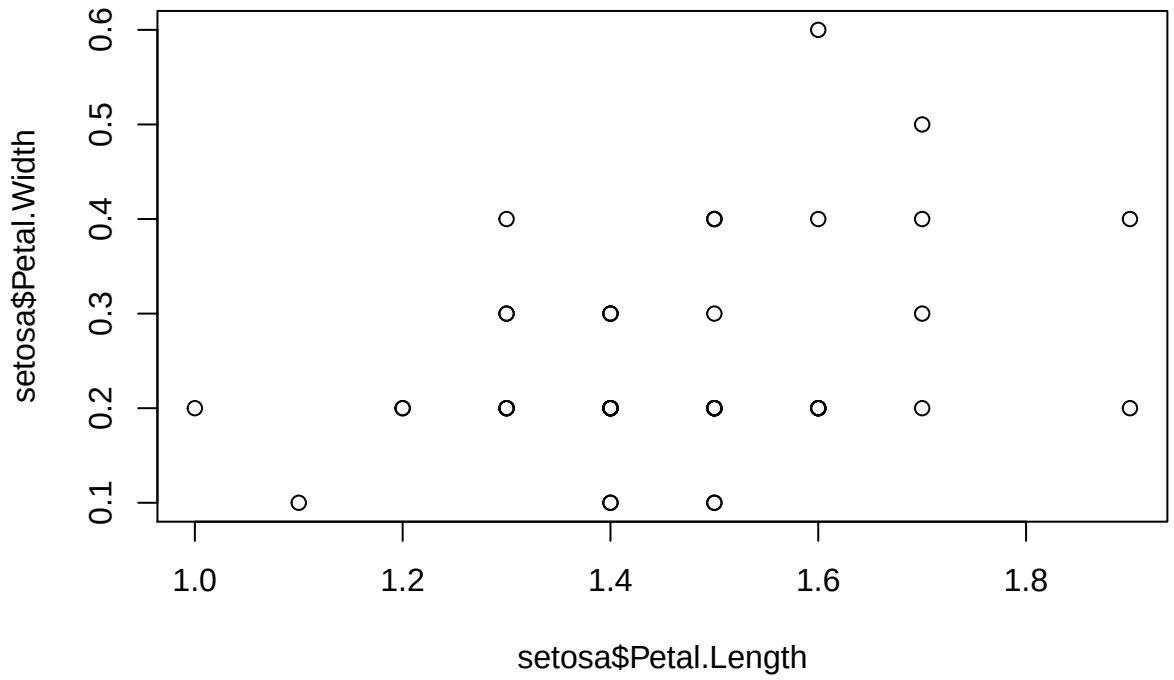
```
##   Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1          5.1         3.5          1.4         0.2  setosa
## 2          4.9         3.0          1.4         0.2  setosa
## 3          4.7         3.2          1.3         0.2  setosa
## 4          4.6         3.1          1.5         0.2  setosa
## 5          5.0         3.6          1.4         0.2  setosa
## 6          5.4         3.9          1.7         0.4  setosa
```

```r
summary(iris)
```

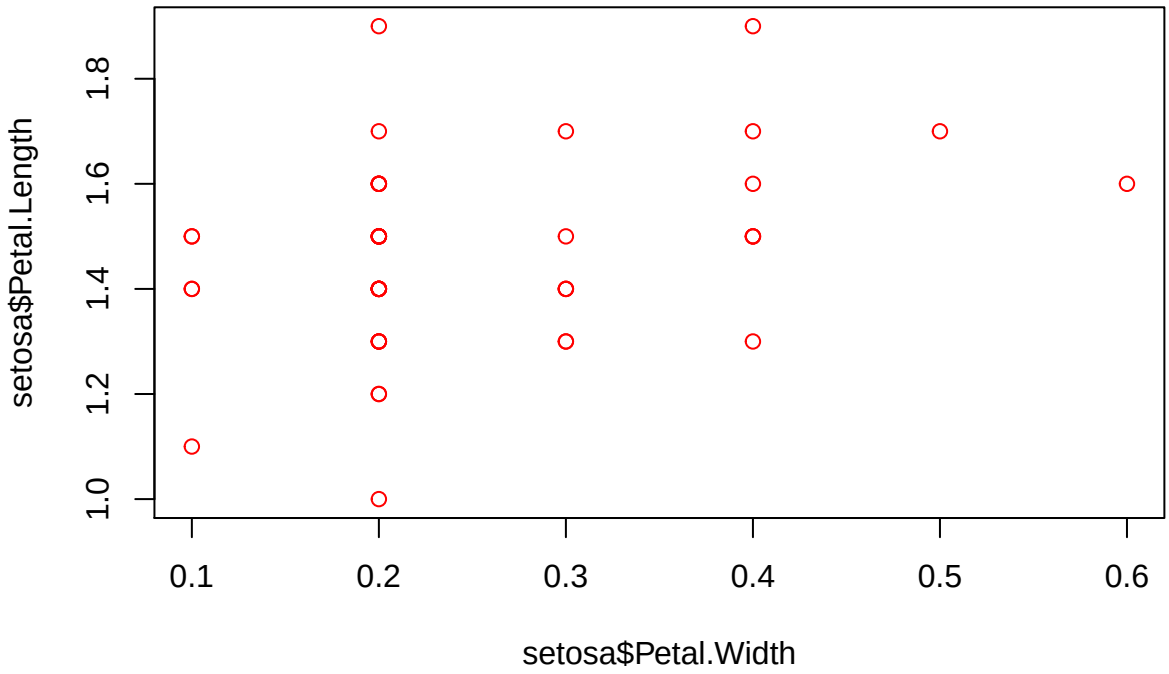
```
##   Sepal.Length    Sepal.Width     Petal.Length    Petal.Width
##  Min.   :4.300   Min.   :2.000   Min.   :1.000   Min.   :0.100
##  1st Qu.:5.100   1st Qu.:2.800   1st Qu.:1.600   1st Qu.:0.300
##  Median :5.800   Median :3.000   Median :4.350   Median :1.300
##  Mean   :5.843   Mean   :3.057   Mean   :3.758   Mean   :1.199
##  3rd Qu.:6.400   3rd Qu.:3.300   3rd Qu.:5.100   3rd Qu.:1.800
##  Max.   :7.900   Max.   :4.400   Max.   :6.900   Max.   :2.500
##        Species
##  setosa    :50
##  versicolor:50
##  virginica :50
##
##
##
```

```r
setosa <- subset(iris, Species == "setosa")

plot(setosa$Petal.Length, setosa$Petal.Width)
```



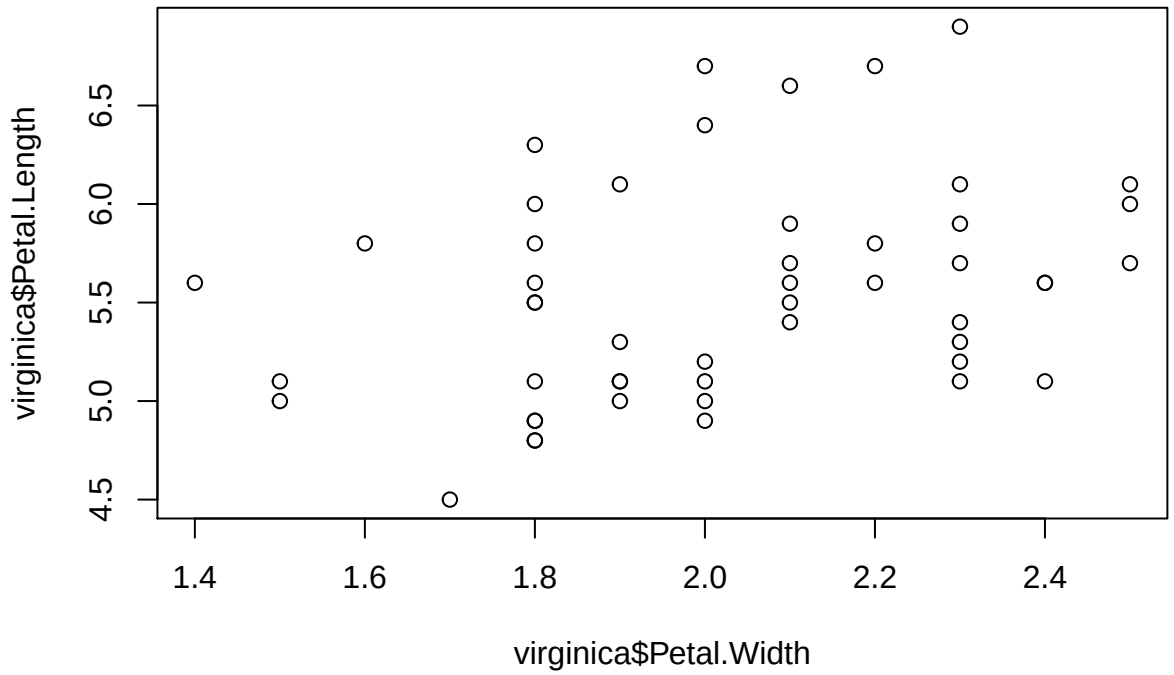
```
plot(setosa$Petal.Width, setosa$Petal.Length, col="red")
```




```
cor.test(setosa$Petal.Length, setosa$Petal.Width)
```

```
##
##  Pearson's product-moment correlation
##
## data:  setosa$Petal.Length and setosa$Petal.Width
## t = 2.4354, df = 48, p-value = 0.01864
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.05870091 0.55842995
## sample estimates:
##     cor
## 0.33163
```

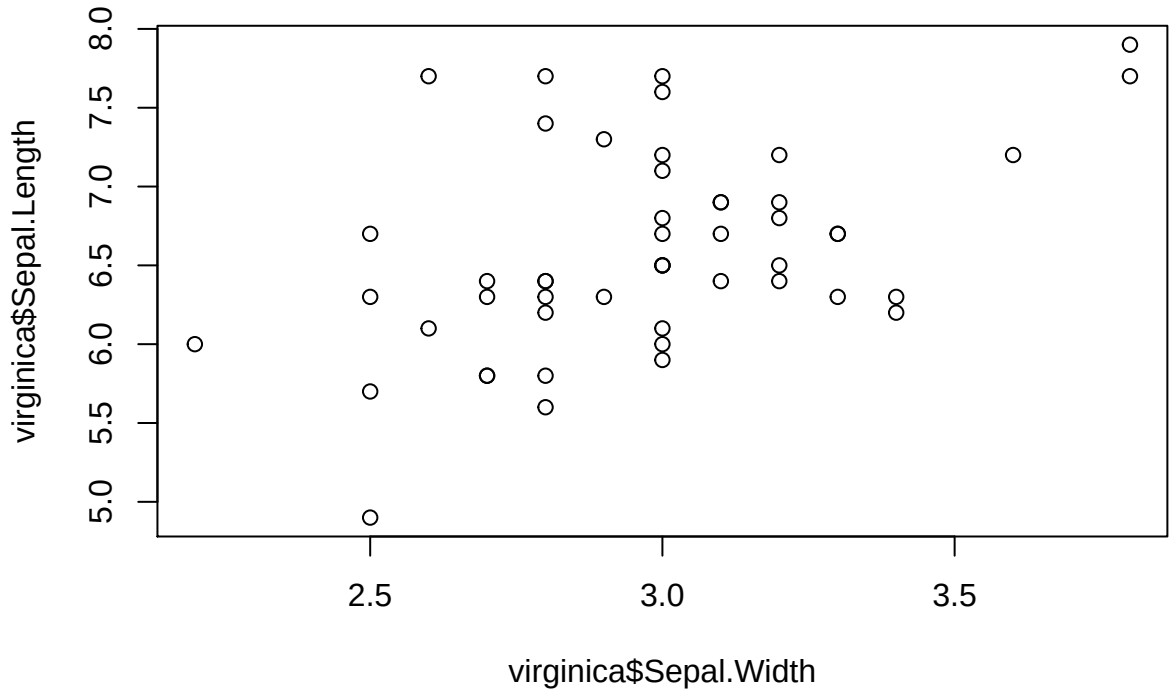
```
virginica <- subset(iris, Species == "virginica")
plot( virginica$Petal.Width, virginica$Petal.Length)
```




```
cor.test(virginica$Petal.Width, virginica$Petal.Length)
```

```
##
##  Pearson's product-moment correlation
##
## data:  virginica$Petal.Width and virginica$Petal.Length
## t = 2.3573, df = 48, p-value = 0.02254
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.0480704 0.5510499
## sample estimates:
##       cor
## 0.3221082
```

```
plot(virginica$Sepal.Width, virginica$Sepal.Length)
```




```
cor.test(virginica$Sepal.Length, virginica$Sepal.Width)
```

```
##
##  Pearson's product-moment correlation
##
## data:  virginica$Sepal.Length and virginica$Sepal.Width
## t = 3.5619, df = 48, p-value = 0.0008435
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.2049657 0.6525292
## sample estimates:
##       cor
## 0.4572278
```