clase-4.R

Usuario1

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```
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# Clase 4

erupciones <- read.csv("C:/Maestria/erupcion.csv", header = T)
head(erupciones)
```
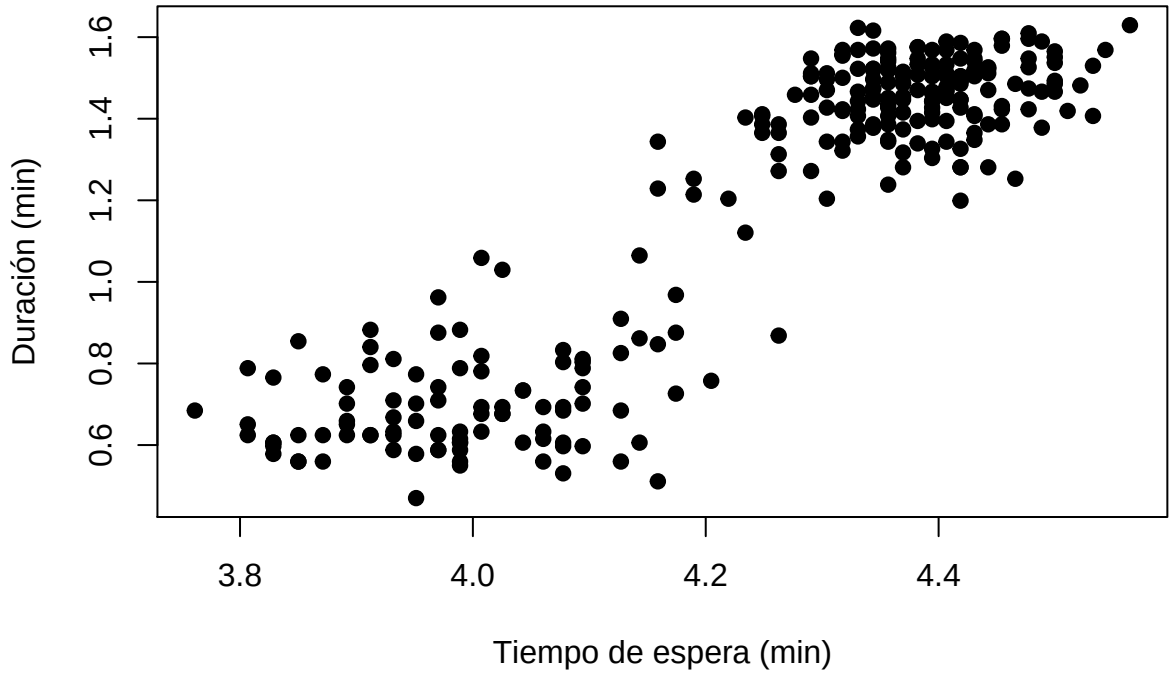

```
##   eruptions waiting
## 1     3.600      79
## 2     1.800      54
## 3     3.333      74
## 4     2.283      62
## 5     4.533      85
## 6     2.883      55
```

```
plot(log(erupciones$waiting), log(erupciones$eruptions), xlab = "Tiempo de espera (min)",
     ylab = "Duración (min)",pch = 19)
```




```
library(pastecs)
```

```r
stat.desc(erupciones$eruptions,basic=FALSE, norm =TRUE)
```

```
##        median          mean       SE.mean  CI.mean.0.95           var
##  4.000000e+00  3.487783e+00  6.920580e-02  1.362494e-01  1.302728e+00
##       std.dev      coef.var      skewness      skew.2SE      kurtosis
##  1.141371e+00  3.272483e-01 -4.135498e-01 -1.399854e+00 -1.511605e+00
##      kurt.2SE    normtest.W    normtest.p
## -2.567516e+00  8.459156e-01  9.036119e-16
```

```r
shapiro.test(erupciones$eruptions)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  erupciones$eruptions
## W = 0.84592, p-value = 9.036e-16
```

```r
shapiro.test(erupciones$eruptions)
```

```
##
##  Shapiro-Wilk normality test
##
## data:  erupciones$eruptions
## W = 0.84592, p-value = 9.036e-16
```

```r
cor.test(erupciones$eruptions, erupciones$waiting)
```

```
##
##  Pearson's product-moment correlation
##
## data:  erupciones$eruptions and erupciones$waiting
## t = 34.089, df = 270, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.8756964 0.9210652
## sample estimates:
##       cor
## 0.9008112
```

```r
# La correlacion es significativa, ya que el p_value es menor que el 0.05
# de los niveles de confianza
```