Mineria de Datos

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##     speed           dist
## Min.   : 4.0   Min.   :  2.00
## 1st Qu.:12.0   1st Qu.: 26.00
## Median :15.0   Median : 36.00
## Mean   :15.4   Mean   : 42.98
## 3rd Qu.:19.0   3rd Qu.: 56.00
## Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

##PEC2 Obtenemos el dataset referente a la información de los halcones.

```r
if (!require('Stat2Data')) install.packages('Stat2Data')
```

```
## Loading required package: Stat2Data
```

```r
library(Stat2Data)
data("Hawks")
summary(Hawks)
```

```
##      Month            Day             Year        CaptureTime    ReleaseTime
##  Min.   : 8.000   Min.   : 1.00   Min.   :1992   11:35  : 14             :842
##  1st Qu.: 9.000   1st Qu.: 9.00   1st Qu.:1995   13:30  : 14   11:00  :  2
##  Median :10.000   Median :16.00   Median :1999   11:45  : 13   11:35  :  2
##  Mean   : 9.843   Mean   :15.74   Mean   :1998   12:10  : 13   12:05  :  2
##  3rd Qu.:10.000   3rd Qu.:23.00   3rd Qu.:2001   14:00  : 13   12:50  :  2
##  Max.   :11.000   Max.   :31.00   Max.   :2003   13:05  : 12   13:32  :  2
##                                                  (Other):829   (Other): 56
##     BandNumber    Species   Age      Sex        Wing           Weight
##            :  2   CH: 70    A:224     :576   Min.   : 37.2   Min.   :  56.0
##  1142-09240:  1   RT:577    I:684   F:174   1st Qu.:202.0   1st Qu.: 185.0
##  1142-09241:  1   SS:261            M:158   Median :370.0   Median : 970.0
```

```
## 1142-09242:  1                         Mean   :315.6    Mean   : 772.1
## 1142-18229:  1                         3rd Qu.:390.0    3rd Qu.:1120.0
## 1142-19209:  1                         Max.   :480.0    Max.   :2030.0
## (Other)   :901                         NA's   :1        NA's   :10
##    Culmen          Hallux           Tail         StandardTail
## Min.   : 8.6    Min.   :  9.50   Min.   :119.0   Min.   :115.0
## 1st Qu.:12.8    1st Qu.: 15.10   1st Qu.:160.0   1st Qu.:162.0
## Median :25.5    Median : 29.40   Median :214.0   Median :215.0
## Mean   :21.8    Mean   : 26.41   Mean   :198.8   Mean   :199.2
## 3rd Qu.:27.3    3rd Qu.: 31.40   3rd Qu.:225.0   3rd Qu.:226.0
## Max.   :39.2    Max.   :341.40   Max.   :288.0   Max.   :335.0
## NA's   :7       NA's   :6                        NA's   :337
##     Tarsus        WingPitFat        KeelFat          Crop
## Min.   :24.70   Min.   :0.0000   Min.   :0.000   Min.   :0.0000
## 1st Qu.:55.60   1st Qu.:0.0000   1st Qu.:2.000   1st Qu.:0.0000
## Median :79.30   Median :1.0000   Median :2.000   Median :0.0000
## Mean   :71.95   Mean   :0.7922   Mean   :2.184   Mean   :0.2345
## 3rd Qu.:87.00   3rd Qu.:1.0000   3rd Qu.:3.000   3rd Qu.:0.2500
## Max.   :94.00   Max.   :3.0000   Max.   :4.000   Max.   :5.0000
## NA's   :833     NA's   :831      NA's   :341     NA's   :343
```

```
str(Hawks)
```

```
## 'data.frame':    908 obs. of  19 variables:
##  $ Month       : int  9 9 9 9 9 9 9 9 9 9 ...
##  $ Day         : int  19 22 23 23 27 28 28 29 29 30 ...
##  $ Year        : int  1992 1992 1992 1992 1992 1992 1992 1992 1992 1992 ...
##  $ CaptureTime : Factor w/ 308 levels " ","1:15","1:31",..: 181 25 138 42 62 71 181 88 261 192 ...
##  $ ReleaseTime : Factor w/ 60 levels "","  ","10:20",..: 1 2 2 2 2 2 2 2 2 2 ...
##  $ BandNumber  : Factor w/ 907 levels " ","1142-09240",..: 856 857 858 809 437 280 859 860 861 281 .
##  $ Species     : Factor w/ 3 levels "CH","RT","SS": 2 2 2 1 3 2 2 2 2 2 ...
##  $ Age         : Factor w/ 2 levels "A","I": 2 2 2 2 2 2 2 2 1 1 2 ...
##  $ Sex         : Factor w/ 3 levels "","F","M": 1 1 1 2 2 1 1 1 1 1 ...
##  $ Wing        : num  385 376 381 265 205 412 370 375 412 405 ...
##  $ Weight      : int  920 930 990 470 170 1090 960 855 1210 1120 ...
##  $ Culmen      : num  25.7 NA 26.7 18.7 12.5 28.5 25.3 27.2 29.3 26 ...
##  $ Hallux      : num  30.1 NA 31.3 23.5 14.3 32.2 30.1 30 31.3 30.2 ...
##  $ Tail        : int  219 221 235 220 157 230 212 243 210 238 ...
##  $ StandardTail: int  NA NA NA NA NA NA NA NA NA NA ...
##  $ Tarsus      : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ WingPitFat  : int  NA NA NA NA NA NA NA NA NA NA ...
##  $ KeelFat     : num  NA NA NA NA NA NA NA NA NA NA ...
##  $ Crop        : num  NA NA NA NA NA NA NA NA NA NA ...
```