R Notebook

Data frame de Iris

```
df = iris
head(df, 5)
##
     Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1
              5.1
                           3.5
                                        1.4
                                                    0.2 setosa
              4.9
                                                    0.2 setosa
## 2
                          3.0
                                        1.4
## 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
tail(df, 5)
##
       Sepal.Length Sepal.Width Petal.Length Petal.Width
                                                             Species
## 146
                             3.0
                6.7
                                          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
str(df)
## 'data.frame':
                    150 obs. of 5 variables:
## $ Sepal.Length: num 5.1 4.9 4.7 4.6 5 5.4 4.6 5 4.4 4.9 ...
## $ Sepal.Width : num 3.5 3 3.2 3.1 3.6 3.9 3.4 3.4 2.9 3.1 ...
   $ Petal.Length: num 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5 ...
   $ Petal.Width : num 0.2 0.2 0.2 0.2 0.2 0.4 0.3 0.2 0.2 0.1 ...
                 : Factor w/ 3 levels "setosa", "versicolor", ...: 1 1 1 1 1 1 1 1 1 1 ...
  $ Species
names(df) #colnames
## [1] "Sepal.Length" "Sepal.Width" "Petal.Length" "Petal.Width"
                                                                     "Species"
rownames(df)
               "2"
                     "3"
                            "4"
                                  "5"
                                        "6"
                                               "7"
                                                     "8"
                                                           "9"
                                                                              "12"
##
     [1] "1"
                                                                 "10"
                                                                       "11"
                                        "18"
##
    [13] "13"
               "14"
                     "15"
                            "16"
                                  "17"
                                               "19"
                                                     "20"
                                                           "21"
                                                                 "22"
                                                                       "23"
                                                                              "24"
               "26"
                     "27"
                            "28"
                                  "29"
                                        "30"
                                              "31"
                                                     "32"
                                                           "33"
                                                                 "34"
                                                                       "35"
                                                                              "36"
##
    [25] "25"
   [37] "37"
               "38"
                     "39"
                            "40"
                                  "41"
                                        "42"
                                              "43"
                                                     "44"
                                                           "45"
                                                                 "46"
                                                                       "47"
                                                                              "48"
##
               "50"
                     "51"
                            "52"
                                  "53"
                                        "54"
                                              "55"
                                                     "56"
                                                           "57"
                                                                 "58"
                                                                       "59"
                                                                              "60"
   [49] "49"
```

```
[61] "61" "62" "63" "64" "65" "66" "67"
                                                "68" "69" "70" "71" "72"
##
##
   [73] "73" "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84"
   [85] "85" "86" "87" "88" "89" "90" "91" "92" "93" "94" "95" "96"
   [97] "97" "98" "99" "100" "101" "102" "103" "104" "105" "106" "107" "108"
## [109] "109" "110" "111" "112" "113" "114" "115" "116" "117" "118" "119" "120"
## [121] "121" "122" "123" "124" "125" "126" "127" "128" "129" "130" "131" "132"
## [133] "133" "134" "135" "136" "137" "138" "139" "140" "141" "142" "143" "144"
## [145] "145" "146" "147" "148" "149" "150"
dimnames(df)
## [[1]]
    [1] "1"
              "2"
                    "3"
                         "4"
                               "5"
                                     "6"
                                           "7"
                                                "8"
                                                      "9"
                                                            "10"
                                                                  "11"
                                                                       "12"
   [13] "13"
                                     "18"
              "14"
                    "15"
                         "16"
                               "17"
                                           "19"
                                                "20"
                                                      "21" "22"
                                                                  "23"
                                                                       "24"
##
   [25] "25"
              "26"
                   "27"
                         "28"
                               "29"
                                     "30" "31" "32"
                                                      "33" "34" "35"
                                                                       "36"
   [37] "37"
                   "39"
                         "40" "41"
                                     "42"
                                          "43" "44" "45" "46" "47"
##
             "38"
                                                                       "48"
                               "53"
                                     "54"
   [49] "49"
              "50"
                    "51"
                         "52"
                                          "55"
                                                "56"
                                                      "57" "58" "59"
##
                    "63"
                         "64"
                               "65"
                                     "66"
##
   [61] "61"
              "62"
                                           "67"
                                                "68"
                                                      "69" "70" "71"
##
   [73] "73"
              "74" "75" "76" "77" "78" "79" "80" "81" "82" "83" "84"
   [85] "85"
              "86"
                    "87"
                         "88" "89" "90" "91" "92" "93" "94" "95" "96"
  [97] "97"
              "98"
                    "99" "100" "101" "102" "103" "104" "105" "106" "107" "108"
##
## [109] "109" "110" "111" "112" "113" "114" "115" "116" "117" "118" "119" "120"
## [121] "121" "122" "123" "124" "125" "126" "127" "128" "129" "130" "131" "132"
## [133] "133" "134" "135" "136" "137" "138" "139" "140" "141" "142" "143" "144"
## [145] "145" "146" "147" "148" "149" "150"
##
## [[2]]
## [1] "Sepal.Length" "Sepal.Width" "Petal.Length" "Petal.Width" "Species"
dim(df)
## [1] 150
df$Petal.Length[1:10]
## [1] 1.4 1.4 1.3 1.5 1.4 1.7 1.4 1.5 1.4 1.5
df$Species[1:10]
## [1] setosa setosa setosa setosa setosa setosa setosa setosa setosa
## Levels: setosa versicolor virginica
Acceso al DF
df[1:10,]
##
     Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1
              5.1
                         3.5
                                      1.4
                                                 0.2 setosa
                                                 0.2 setosa
## 2
              4.9
                         3.0
                                      1.4
```

```
## 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
                                                 0.3 setosa
              4.6
                         3.4
                                      1.4
## 8
              5.0
                         3.4
                                      1.5
                                                 0.2 setosa
## 9
                                                 0.2 setosa
              4.4
                         2.9
                                      1.4
                                                 0.1 setosa
## 10
              4.9
                         3.1
                                      1.5
```

df[1:10, 2:4]

```
Sepal.Width Petal.Length Petal.Width
##
## 1
              3.5
                           1.4
## 2
              3.0
                           1.4
                                       0.2
## 3
              3.2
                           1.3
                                       0.2
## 4
              3.1
                                       0.2
                           1.5
## 5
              3.6
                           1.4
                                       0.2
## 6
              3.9
                           1.7
                                       0.4
## 7
              3.4
                           1.4
                                       0.3
## 8
              3.4
                           1.5
                                       0.2
## 9
                           1.4
              2.9
                                       0.2
## 10
              3.1
                           1.5
                                       0.1
```

df[df\$Species == "setosa" & df\$Sepal.Width> 4,]

```
##
     Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 16
              5.7
                          4.4
                                       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
```

df[df\$Species == "setosa" & df\$Sepal.Width> 4,][c(1,3), c(2,5)]

```
## Sepal.Width Species
## 16 4.4 setosa
## 34 4.2 setosa
```