R. Notebook

Data frame de Iris

```
df = iris
head(df, 5)
     Sepal.Length Sepal.Width Petal.Length Petal.Width Species
## 1
                           3.5
              5.1
                                        1.4
                                                     0.2 setosa
## 2
              4.9
                           3.0
                                        1.4
                                                     0.2 setosa
## 3
              4.7
                           3.2
                                                     0.2 setosa
                                        1.3
## 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
                6.7
                             3.0
                                          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)
                    150 obs. of 5 variables:
## 'data.frame':
## $ 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 ...
## $ Species
                   : Factor w/ 3 levels "setosa", "versicolor", ...: 1 1 1 1 1 1 1 1 1 1 ...
names(df) #colnames
## [1] "Sepal.Length" "Sepal.Width" "Petal.Length" "Petal.Width"
                                                                      "Species"
rownames(df)
               "2"
                      "3"
                            "4"
                                  "5"
                                        "6"
                                               "7"
                                                     "8"
                                                           "9"
                                                                  "10"
##
     [1] "1"
                                                                        "11"
                                                                              "12"
                      "15"
                                  "17"
                                        "18"
                                               "19"
                                                     "20"
                                                           "21"
                                                                 "22"
                                                                        "23"
                                                                              "24"
##
    [13] "13"
               "14"
                            "16"
##
    [25] "25"
               "26"
                     "27"
                            "28"
                                  "29"
                                        "30"
                                               "31"
                                                     "32"
                                                           "33"
                                                                 "34"
                                                                        "35"
                                                                              "36"
    [37] "37"
               "38"
                      "39"
                            "40"
                                  "41"
                                        "42"
                                               "43"
                                                     "44"
                                                           "45"
                                                                 "46"
                                                                        "47"
               "50"
                            "52"
                                  "53"
                                        "54"
                                               "55"
                                                     "56"
                                                           "57"
                                                                 "58"
                                                                        "59"
##
    [49] "49"
                      "51"
                                                                              "60"
##
    [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"
    [85] "85"
               "86"
                      "87"
                            "88"
                                  "89"
                                        "90"
                                               "91"
                                                     "92"
                                                           "93"
                                                                 "94"
   [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"
```

```
##
  [[1]]
     [1] "1"
               "2"
                     "3"
                           "4"
                                 "5"
                                       "6"
                                              "7"
                                                    "8"
                                                          "9"
                                                                "10"
                                                                      "11"
                                                                            "12"
                                 "17"
                                                                "22"
                                                                      "23"
    [13] "13"
               "14"
                     "15"
                           "16"
                                       "18"
                                             "19"
                                                    "20"
                                                          "21"
                                                                            "24"
##
    [25] "25"
               "26"
                     "27"
                           "28"
                                 "29"
                                       "30"
                                              "31"
                                                    "32"
                                                          "33"
                                                                "34"
                                                                      "35"
                                                                            "36"
##
    [37] "37"
                                                                      "47"
##
               "38"
                     "39"
                           "40"
                                 "41"
                                       "42"
                                              "43"
                                                    "44"
                                                          "45"
                                                                "46"
                                                                            "48"
    [49] "49"
                           "52"
                                       "54"
                                                                      "59"
##
               "50"
                     "51"
                                 "53"
                                              "55"
                                                    "56"
                                                          "57"
                                                                "58"
##
   [61] "61"
               "62"
                     "63"
                           "64"
                                 "65"
                                       "66"
                                             "67"
                                                    "68"
                                                          "69"
                                                               "70"
                                                                      "71"
                                                                            "72"
   [73] "73"
                     "75"
                           "76"
                                 "77"
                                       "78"
                                              "79"
##
               "74"
                                                    "80"
                                                          "81"
                                                                "82"
                                                                      "83"
   [85] "85"
                                       "90"
                                             "91"
                                                                            "96"
               "86"
                     "87"
                           "88"
                                 "89"
                                                    "92"
                                                          "93"
                                                               "94"
                                                                      "95"
##
              "98" "99" "100" "101" "102" "103" "104" "105" "106" "107" "108"
##
   [97] "97"
## [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
                           3.5
               5.1
                                        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
## 7
               4.6
                           3.4
                                        1.4
                                                     0.3 setosa
## 8
               5.0
                           3.4
                                        1.5
                                                     0.2 setosa
## 9
               4.4
                           2.9
                                                     0.2 setosa
                                        1.4
## 10
               4.9
                           3.1
                                        1.5
                                                     0.1 setosa
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
                           1.5
                                       0.2
## 5
              3.6
                           1.4
                                       0.2
```

dimnames(df)

```
## 6
             3.9
                         1.7
                                     0.4
## 7
             3.4
                         1.4
                                     0.3
## 8
             3.4
                         1.5
                                     0.2
## 9
             2.9
                         1.4
                                     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
            4.4 setosa
## 16
## 34
            4.2 setosa
```