Execício 1

Questão 1

```
df = read.csv('http://meusite.mackenzie.br/rogerio/TIC/mystocksn.csv')
head(df)
```

```
##          data   IBOV VALE3 PETR4  DOLAR
## 1 2020-01-02 118573 13.45 16.27 4.0163
## 2 2020-01-03 117707 13.29 15.99 4.0234
## 3 2020-01-06 116878 13.14 16.22 4.0570
## 4 2020-01-07 116662 13.23 16.06 4.0604
## 5 2020-01-08 116247 13.22 15.70 4.0662
## 6 2020-01-09 115947 12.99 15.75 4.0628
```

Quantos registros?

```
print(nrow(df))
```

```
## [1] 43
```

Quantidade de atributos?

```
print(ncol(df))
```

```
## [1] 5
```

Quais atributos?

```
print(colnames(df))
```

```
## [1] "data"  "IBOV"  "VALE3" "PETR4" "DOLAR"
```

Qual o valor mínimo do dólar neste período?

```
print(min(df$DOLAR))
```

```
## [1] 4.0163
```

Qual o valor máximo do dólar neste período?

```
print(max(df$DOLAR))
```

```
## [1] 4.6062
```

Questão 4

- Qual o valor da ação VALE3 em 2020-03-02?

    - Resposta: utilize um subset do df, seja por meio de `subset(df, colunaCondicao == ValorDaColuna)` ou o método abaixo:

```
resultDf = df[df$data == "2020-03-02", ]
print(resultDf$VALE3)
```

```
## [1] 10.27
```

Questão 5

- Qual a média de valor da ação VALE3 nos dados?

```
print(mean(df[["VALE3"]]))
```

```
## [1] 12.04628
```

Exercício 2

- Considere a base.

```
library(MASS)
head(Cars93)
```

```
##     Manufacturer     Model     Type Min.Price Price Max.Price MPG.city MPG.highway
## 1         Acura    Integra    Small      12.9  15.9      18.8       25          31
## 2         Acura     Legend  Midsize      29.2  33.9      38.7       18          25
## 3          Audi         90  Compact      25.9  29.1      32.3       20          26
## 4          Audi        100  Midsize      30.8  37.7      44.6       19          26
## 5           BMW       535i  Midsize      23.7  30.0      36.2       22          30
## 6         Buick    Century  Midsize      14.2  15.7      17.3       22          31
##              AirBags DriveTrain Cylinders EngineSize Horsepower  RPM
## 1               None      Front         4        1.8        140 6300
## 2 Driver & Passenger      Front         6        3.2        200 5500
## 3        Driver only      Front         6        2.8        172 5500
## 4 Driver & Passenger      Front         6        2.8        172 5500
## 5        Driver only       Rear         4        3.5        208 5700
## 6        Driver only      Front         4        2.2        110 5200
##   Rev.per.mile Man.trans.avail Fuel.tank.capacity Passengers Length Wheelbase
## 1         2890             Yes               13.2          5    177       102
## 2         2335             Yes               18.0          5    195       115
## 3         2280             Yes               16.9          5    180       102
## 4         2535             Yes               21.1          6    193       106
## 5         2545             Yes               21.1          4    186       109
## 6         2565              No               16.4          6    189       105
##   Width Turn.circle Rear.seat.room Luggage.room Weight  Origin          Make
## 1    68          37           26.5           11   2705 non-USA Acura Integra
## 2    71          38           30.0           15   3560 non-USA  Acura Legend
## 3    67          37           28.0           14   3375 non-USA       Audi 90
## 4    70          37           31.0           17   3405 non-USA      Audi 100
## 5    69          39           27.0           13   3640 non-USA      BMW 535i
## 6    69          41           28.0           16   2880    USA Buick Century
```

```
df = Cars93
```

Quantos veículos são do fabricante 'Ford' no total:

```
fordDf = df[df$Manufacturer == "Ford", ]
print(nrow(fordDf))
```

```
## [1] 8
```

Somente para modelos 'Sporty'?

- Observação: modelo == Sporty não existe, contudo existe Type == "Sporty"

```
fordDf = df[df$Manufacturer == "Ford" & df$Model == "Sporty", ]
print(nrow(fordDf))
```

```
## [1] 0
```

```
fordDf = df[df$Manufacturer == "Ford" & df$Type == "Sporty", ]
fordDf
```

```
##     Manufacturer   Model   Type Min.Price Price Max.Price MPG.city MPG.highway
## 34          Ford Mustang Sporty      10.8  15.9      21.0       22          29
## 35          Ford   Probe Sporty      12.8  14.0      15.2       24          30
##         AirBags DriveTrain Cylinders EngineSize Horsepower  RPM Rev.per.mile
## 34  Driver only       Rear         4        2.3        105 4600         2285
## 35  Driver only      Front         4        2.0        115 5500         2340
##     Man.trans.avail Fuel.tank.capacity Passengers Length Wheelbase Width
## 34              Yes               15.4          4    180       101    68
## 35              Yes               15.5          4    179       103    70
##     Turn.circle Rear.seat.room Luggage.room Weight Origin        Make
## 34           40             24           12   2850    USA Ford Mustang
## 35           38             23           18   2710    USA   Ford Probe
```

```
print(nrow(fordDf))
```

```
## [1] 2
```