RWorksheet4_Frias

2022-12-21

R Markdown

```
#1.The table below shows the data about shoe size and height.
#Create a data frame.

sho_size <- c(6.5,9.0,8.5,8.5,10.5,7.0,9.5,9.0,13.0,7.5,
              10.5,8.5,12.0,10.5)
height <- c(66.0,68.0,64.5,65.0,70.0,64.0,70.0,71.0,72.0,
            64.0,74.5,67.0,71.0,71.0)
gen1 <- c("F","F","F","F","M","F","F","F","M","F","M",
          "F","M","M")
SHO_size <- c(13.0,11.5,8.5,5.0,10.0,6.5,7.5,8.5,10.5,
              8.5,10.5,11.0,9.0,13.0)
HEIGHT <- c(77.0,72.0,59.0,62.0,72.0,66.0,64.0,67.0,73.0,
            69.0,72.0,70.0,69.0,70.0)
Gen2 <- c("M","M","F","F","M","F","F","M","M","F",
          "M","M","M","M")

all <- data.frame(sho_size,height, gen1, SHO_size,
                  HEIGHT, Gen2)
all
```

```
##    sho_size height gen1 SHO_size HEIGHT Gen2
## 1       6.5   66.0    F     13.0     77    M
## 2       9.0   68.0    F     11.5     72    M
## 3       8.5   64.5    F      8.5     59    F
## 4       8.5   65.0    F      5.0     62    F
## 5      10.5   70.0    M     10.0     72    M
## 6       7.0   64.0    F      6.5     66    F
## 7       9.5   70.0    F      7.5     64    F
## 8       9.0   71.0    F      8.5     67    M
## 9      13.0   72.0    M     10.5     73    M
## 10      7.5   64.0    F      8.5     69    F
## 11     10.5   74.5    M     10.5     72    M
## 12      8.5   67.0    F     11.0     70    M
## 13     12.0   71.0    M      9.0     69    M
## 14     10.5   71.0    M     13.0     70    M
```

```
#a. Describe the data.
#The data shows the different shoe size among male and
#female in different heights.

#b. Find the mean of shoe size and height of the respondents. Copy the codes and results.

Me <- mean(sho_size)
Me
```

```
## [1] 9.321429
```

```
Mi <- mean(SHO_size)
Mi
```

```
## [1] 9.5
```

```
Ttl <- c(Me, Mi)
Ttl
```

```
## [1] 9.321429 9.500000
```

```
# Total shoe size mean.
szmean <- mean(Ttl)
szmean
```

```
## [1] 9.410714
```

```
Mo <- mean(height)
Mo
```

```
## [1] 68.42857
```

```
Mu <- mean(HEIGHT)
Mu
```

```
## [1] 68.71429
```

```
aTtl <- c(Mo, Mu)
aTtl
```

```
## [1] 68.42857 68.71429
```

```
# Total height mean.
hght_mean <- mean(aTtl)
hght_mean
```

```
## [1] 68.57143
```

```
#c. Is there a relationship between shoe size and height? Why?
#Yes, there is a relationship between shoe size and height,
#the shoe sizes is big when the respondents is also tall.
#If the height of the respondents is below 70.0 their shoe
#size will be small.

#Factors
```

```
#2.Construct character vector months to a factor with factor()
#and assign the result to factor_months_vector. Print out
#factor_months_vector and assert that R prints out the
#factor levels below the actual values.Consider data
#consisting of the names of months:

Months_vctr <- c("March","April","January","November",
                 "January","September","October","September",
                 "November","August","January","November",
                 "November", "February","May","August",
                 "July","December","August",
                 "August","September","November",
                 "February","April")
```

```
factor_months_vector <- factor(x = Months_vctr)
factor_months_vector
```

```
##  [1] March     April     January   November  January   September October
##  [8] September November  August    January   November  November  February
## [15] May       August    July      December  August    August    September
## [22] November  February  April
## 11 Levels: April August December February January July March May ... September
```

```
# 3. Then check the summary() of the months_vector and
#factor_months_vector. Interpret the results of both vectors.
#Are they both equally useful in this case?

smy <- summary(Months_vctr)
smy
```

```
##    Length     Class      Mode
##        24 character character
```

```
smy1 <- summary(factor_months_vector)
smy1
```

```
##     April    August  December  February   January      July     March       May
##         2         4         1         2         3         1         1         1
##  November   October September
##         5         1         3
```

```
##Both of the vector summary are useful because at the
##summary of months_vector tells us about the length, class,
##and mode. In summary of factor_months_vector it tells
##us how many repeating elements there are.
```

```
# 4. Create a vector and factor for the table below.

Drctn <- c("East", "West", "North")
Frqncy <- c(1, 4, 3)
Mine <- factor(Drctn)
Yours<- factor(Frqncy)
print(Mine)
```

```
## [1] East  West  North
## Levels: East North West
```

```
print(Yours)
```

```
## [1] 1 4 3
## Levels: 1 3 4
```

```
#5. Enter the data below in Excel with
#file name = import_march.csv

#a.Import the excel file into the Environment Pane using
#read.table() function. Write the code.
L <- read.table("/cloud/project/import_march.csv", header= TRUE, sep= "," )
L
```

```
##   Students Strategy.1 Strategy.2 Strategy.3
## 1     Male          8         10          8
```

```
## 2                  4          8          6
## 3                  0          6          4
## 4   Female        14          4         15
## 5                 10          2         12
## 6                  6          0          9
```

```
#b. View the dataset. Write the code and its result.
E <- read.csv("/cloud/project/import_march.csv")
E
```

```
##   Students Strategy.1 Strategy.2 Strategy.3
## 1     Male          8         10          8
## 2                   4          8          6
## 3                   0          6          4
## 4   Female         14          4         15
## 5                  10          2         12
## 6                   6          0          9
```