RWorksheet_Taltal#5

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

```
Shoesize <- 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)
Gender <-c("F","F","F","F","M","F","F","F","M","F","M","F","M","M")
Shoe_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)
Heights <-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)
GenderS <-c("M","M","F","F","M","F","F","M","M","F","M","M","M","M")
a <- data.frame(Shoesize, Height, Gender, Shoe_size, Heights, GenderS)
a
```

```
##    Shoesize Height Gender Shoe_size Heights GenderS
## 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 GENDER AND ITS HEIGHT AND SHOE SIZE, ALSO THE COLUMNS
#OF THE DATA FRAME HAS SAME NAMES.

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

```
mean(a$Shoesize)
```

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

```
mean(Shoe_size)
```

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

```
mean(a$Height)
```

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

```
mean(a$Heights)
```

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

Is there a relationship between shoe size and height? Why? #Yes, there is relationship between the she size and height #the higher the height the bigger the shoe size of a respondent.

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.

```
months <- 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")
months
```

```
##  [1] "March"     "April"     "January"   "November"  "January"   "September"
##  [7] "October"   "September" "November"  "August"    "January"   "November"
## [13] "November"  "February"  "May"       "August"    "July"      "December"
## [19] "August"    "August"    "September" "November"  "February"  "April"
```

```
factor_months_vector <- factor(months)
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?

```
summary(factor_months_vector)
```

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

```
summary(months)
```

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

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

```
factor_data <- c(1,4,3)
new_order_data <- factor(factor_data,levels = c("East","West","North"))
print(new_order_data)
```

```
## [1] <NA> <NA> <NA>
## Levels: East West North
```

```
new_order_data <- factor(factor_data,levels = c("East","West","North"))
print(new_order_data)
```

```
## [1] <NA> <NA> <NA>
## Levels: East West North
```

```
factor(factor_data)
```

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

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

a.a. Import the excel file into the Environment Pane using read.table() function. Write the code.

```
library(readxl)
```

```
## Warning: package 'readxl' was built under R version 4.2.2
```

```
X_import_march_csv <- read_excel("= import_march.csv.xlsx")
```

b. View the dataset. Write the code and its result.

```
View(X_import_march_csv)
```