

WorkSheet4

Carl Frederick Delicana, BSIT 2-A

11-22-2022

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

#a. Describe the data.

```
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,  
              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(66.0,68.0,64.5,65.0,70.0,  
            64.0,70.0,71.0,72.0,64.0,  
            74.5,67.0,71.0,71.0,77.0,72.0,  
            59.0,62.0,72.0,66.0,64.0,67.0,73.0,  
            69.0,72.0,70.0,69.0,70)
```

```
Gender <- c("F","F","F","F","M","F","M","F","M",  
            "M","M","F","M","M","M","M","F","F",  
            "M","F","M","M","M","F","M","M","M","M")
```

```
df <- data.frame(Shoesize,Height,Gender)
```

df

#Output:

| # | Shoesize | Height | Gender |
|-----|----------|--------|--------|
| #1 | 6.5 | 66.0 | F |
| #2 | 9.0 | 68.0 | F |
| #3 | 8.5 | 64.5 | F |
| #4 | 8.5 | 65.0 | F |
| #5 | 10.5 | 70.0 | M |
| #6 | 7.0 | 64.0 | F |
| #7 | 9.5 | 70.0 | M |
| #8 | 9.0 | 71.0 | F |
| #9 | 13.0 | 72.0 | M |
| #10 | 7.5 | 64.0 | M |
| #11 | 10.5 | 74.5 | M |
| #12 | 8.5 | 67.0 | F |
| #13 | 12.0 | 71.0 | M |
| #14 | 10.5 | 71.0 | M |
| #15 | 13.0 | 77.0 | M |
| #16 | 11.5 | 72.0 | M |
| #17 | 8.5 | 59.0 | F |
| #18 | 5.0 | 62.0 | F |
| #19 | 10.0 | 72.0 | M |
| #20 | 6.5 | 66.0 | F |
| #21 | 7.5 | 64.0 | M |
| #22 | 8.5 | 67.0 | M |

```
#23      10.5   73.0     M
#24       8.5   69.0     F
#25      10.5   72.0     M
#26      11.0   70.0     M
#27       9.0   69.0     M
#28      13.0   70.0     M
```

#b. Find the mean of shoe size and height of the respondents. Copy the codes and results.
summary(df)

```
# SHOESIZE: Mean    : 9.411
# HEIGHT:   Mean    :68.57
```

```
#Output:
#   Shoesize      Height      Gender
#Min.   : 5.000   Min.   :59.00   Length:28
#1st Qu.: 8.500   1st Qu.:65.75   Class :character
#Median : 9.000   Median :69.50   Mode  :character
#Mean    : 9.411   Mean    :68.57
#3rd Qu.:10.500   3rd Qu.:71.25
#Max.    :13.000   Max.    :77.00
```

#c. Is there a relationship between shoe size and height? Why?
Yes, The Higher the height, the greater the shoesize.
#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")
```

```
factor_Months <- factor(Months)
```

```
factor_Months
```

```
#Output:
#[1] March      April      January    November   January    September  October    September
#[9] November   August     January    November   November   February   May         August
#[17] July       December   August     August     September  November   February    April
#11 Levels: April August December February January July March May November ... September
```

#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.

#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(Months)
```

```
#Output:
```

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

```
summary(factor_Months)
```

```
#Output:
```

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

```

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

#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.
data_tab <- read.table("/cloud/project/Rworksheet4/import_march.csv", header=TRUE, sep = ",")
data_tab
#b. View the dataset. Write the code and its result.
tab <- read.csv("/cloud/project/Rworksheet4/import_march.csv")
tab

```