RWorksheet_Cahutay#4a

Mark Anton Cahutay

2024-10-16

1. Data Frame about shoe size and height.

```
#A.
shoe_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, 13.0, 11.5, 8
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, 7
gender <- c('F', 'F', 'F', 'F', 'M', 'F', 'F', 'F', 'M', 'F', 'M', 'F', 'M', 'M', 'M', 'M', 'F', 'F', '

shoe_data <- data.frame(
  Shoe_Size = shoe_size,
  Height = height,
  Gender = gender
)
shoe_data
```

```
##    Shoe_Size 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      F
## 8        9.0   71.0      F
## 9       13.0   72.0      M
## 10       7.5   64.0      F
## 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      F
## 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
```

```r
#output shows the tabular data of shoe size, height, and gender.
```

```r
#B. Subset by males and females
males <- subset(shoe_data, Gender == "M", select = c(Shoe_Size, Height))
males
```

```
##    Shoe_Size Height
## 5       10.5   70.0
## 9       13.0   72.0
## 11      10.5   74.5
## 13      12.0   71.0
## 14      10.5   71.0
## 15      13.0   77.0
## 16      11.5   72.0
## 19      10.0   72.0
## 22       8.5   67.0
## 23      10.5   73.0
## 25      10.5   72.0
## 26      11.0   70.0
## 27       9.0   69.0
## 28      13.0   70.0
```

```r
females <- subset(shoe_data, Gender == "F", select = c(Shoe_Size, Height))
females
```

```
##    Shoe_Size Height
## 1        6.5   66.0
## 2        9.0   68.0
## 3        8.5   64.5
## 4        8.5   65.0
## 6        7.0   64.0
## 7        9.5   70.0
## 8        9.0   71.0
## 10       7.5   64.0
## 12       8.5   67.0
## 17       8.5   59.0
## 18       5.0   62.0
## 20       6.5   66.0
## 21       7.5   64.0
## 24       8.5   69.0
```

```r
#C. Mean of the shoe size and height.
mean_shoe <- mean(shoe_data$Shoe_Size)
mean_shoe
```

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

```r
mean_height <- mean(shoe_data$Height)
mean_height
```

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

```
#D. Yes, there is a relationship between the shoe size and height of the respondent because when the re
```

2. Factor a character vector months

```
months_vector <- 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(months_vector)
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
```

```
levels(factor_months_vector)
```

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

3. Check summary() of the months_vector and factor_months_vector

```
summary(months_vector)
```

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

```
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
```

```
#The summary of the months_vector data shows the structure about its length, class, and mode.
#The summary of the factor_months_vector shows the frequency of the months appearing in the dataset.
#Both of the results shows relationship and useful information with each other. The summary of the mont
```

4. Create vector and factor for direction table

```
direction <- c("East", "West", "North")
frequency <- c(1, 4, 3)

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

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

5. Import excel file

```r
#A. Import using read.table()
my_file <- read.table("import_march.csv", header = TRUE, sep = ",")
```

```r
#b. View the dataset. Write the R scripts and its result.
print(my_file)
```

```
##   Students Strategy.1 Strategy.2 Strategy3
## 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
```