ICA\_1 AndresAlba

## R Markdown

Chair Orders Excersice #1 #1.a

orderNum <- c(1:5)  
numUnits <- c(5,7,3,4,6)  
color <- c("brown", "red", "red", "blue", "red")  
done <- c(TRUE, TRUE, FALSE, FALSE, FALSE)

# 1.b

ChairOrders <- data.frame(orderNum, numUnits, color, done)

# 1.c

This remove the datastructures but it keep the Chair Orders

out\_rm <- rm(orderNum, numUnits, color, done)

# 1.d

the name of the first columb is orderNum [1](#section-3) “orderNum” “numUnits” “color” “done”

names(ChairOrders)

## [1] "orderNum" "numUnits" "color" "done"

# 1.e

print(ChairOrders)

## orderNum numUnits color done  
## 1 1 5 brown TRUE  
## 2 2 7 red TRUE  
## 3 3 3 red FALSE  
## 4 4 4 blue FALSE  
## 5 5 6 red FALSE

The same frame with modify names

orderNum <- c(1:5)  
numUnits <- c(5,7,3,4,6)  
color <- c("brown", "red", "red", "blue", "red")  
done <- c(TRUE, TRUE, FALSE, FALSE, FALSE)  
ChairOrders\_modif\_names <- data.frame(ordenes=orderNum, unidades=numUnits, colores=color, realizado=done)

# 2

mean\_2a <- mean(ChairOrders) mean\_2b <- mean(ChairOrders$numUnits) > mean\_2a [1](#section-3) NA > mean\_2b [1](#section-3) 5

mean\_2a <- mean(ChairOrders)

## Warning in mean.default(ChairOrders): argument is not numeric or logical:  
## returning NA

mean\_2b <- mean(ChairOrders$numUnits)

# 3

# 3.a

sum\_numUnits <- sum(ChairOrders$numUnits)  
sum\_numUnits

## [1] 25

# 3.b

print(ChairOrders$numUnits)

## [1] 5 7 3 4 6

# 3.c

ChairOrders$numUnits[2]

## [1] 7

# 3.d

vector\_red<-ChairOrders$color=="red"  
vector\_red

## [1] FALSE TRUE TRUE FALSE TRUE

vector\_done<-ChairOrders$done=="FALSE"  
vector\_done

## [1] FALSE FALSE TRUE TRUE TRUE

# 3.e

chairs\_notDone <- sum(ChairOrders$numUnits[ChairOrders$done==FALSE])  
chairs\_notDone

## [1] 13

# 3.f

chairs\_Done <- sum(ChairOrders$numUnits[ChairOrders$done==TRUE])  
chairs\_Done

## [1] 12

# 3.g

chairs\_Red <- sum(ChairOrders$numUnits[ChairOrders$color=="red"])  
chairs\_Brown <- sum(ChairOrders$numUnits[ChairOrders$color=="brown"])  
chairs\_Red

## [1] 16

chairs\_Brown

## [1] 5

# 4.a

chair\_red\_notDone <- sum(ChairOrders$numUnits[ChairOrders$color=="red"])  
chair\_red\_notDone

## [1] 16

# 4.b

chair\_notRed\_notDone <- sum(ChairOrders$numUnits[ChairOrders$color!="red" & ChairOrders$done==FALSE])  
chair\_notRed\_notDone

## [1] 4

# 5

summary(ChairOrders)

## orderNum numUnits color done   
## Min. :1 Min. :3 blue :1 Mode :logical   
## 1st Qu.:2 1st Qu.:4 brown:1 FALSE:3   
## Median :3 Median :5 red :3 TRUE :2   
## Mean :3 Mean :5 NA's :0   
## 3rd Qu.:4 3rd Qu.:6   
## Max. :5 Max. :7

The command will show the min, the first quartile, median, mean, third quartile and maximum for each column vector each vector is like a characteristic of the data so you can have a general idea of your data.

# 6.a

help(mode)

Description

Get or set the type or storage mode of an object.

Usage

mode(x) mode(x) <- value storage.mode(x) storage.mode(x) <- value Arguments . . .

# 6.b

With the mode function you can obtain the type of element of the object in the data structure.

mode(ChairOrders$color)

## [1] "numeric"

mode(ChairOrders$done)

## [1] "logical"

# General Questions

# For saving space I decided to not print the outputs in this session.

# 1

mydata <- data.frame(a = numeric(0), b = logical(0), c = character(0))  
data\_a <- c(12,56,30,18)  
data\_b <- c(TRUE,TRUE,FALSE,TRUE)  
data\_c <- c("YES","NO","NO","YES")  
my\_newdata <- data.frame(data\_a,data\_b,data\_c)  
mydata <- edit(my\_newdata)

# 2

vector\_int=c(8:17)  
length(vector\_int)

## [1] 10

# 3

lt <- "My homework list"  
movies <- c("Inglorious Bastards","The life is beautiful","Match Point")  
expences <- c(1500,2500,900,1100,1150)  
family <- "Vanessa"  
my\_homework\_list <- list(title=lt,movies=movies,expenditures=expences,family\_members=family)

# 4

vector\_inc=seq(100,110,0.5)