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 “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 NA > mean_2b 1 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)
```