

Practical Exam 07/03/24

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```
data(warpbreaks)
```

```
# 1.
```

```
NumOrInt <- sapply(warpbreaks, function(x) is.numeric(x) | is.integer(x))  
NumOrInt
```

```
## breaks    wool tension  
##    TRUE   FALSE  FALSE
```

```
#Base on the result of the NumOrInt, Breaks is Numeric, While the Wool and Tension are both integers.
```

```
# 2.
```

```
#The result of NumOrInt gave 3 observations which is "[1:3] TRUE FALSE FALSE", Which indicates the warp
```

```
# 3.
```

```
#If needed to convert into integer I would have this code running as the break is already determined as
```

```
warpbreaks$wool <- as.integer(warpbreaks$wool)  
warpbreaks$tension <- as.integer(warpbreaks$tension)
```

```
# 4.
```

```
#Displayed Error: NumOrInt <- sapplywarpbreaks, function(x) is.numeric(x) | is.integer(x))  
#Error: unexpected ',' in "NumOrInt <- sapplywarpbreaks,"
```

```
#To get an error I removed the ( between the sapply and warbreaks which closes the command input for sa
```

```
#B.Load the exampleFile.txt
```

```
file <- file("exampleFile.txt")  
read <- readLines(file)
```

```
## Warning in readLines(file): incomplete final line found on 'exampleFile.txt'
```

```
read
```

```
## [1] "// Survey data. Created : 21 May 2013"  
## [2] "// Field 1: Gender"  
## [3] "// Field 2: Age (in years)"  
## [4] "// Field 3: Weight (in kg)"  
## [5] "M;28;81.3"  
## [6] "male;45;"  
## [7] "Female;17;57,2"  
## [8] "fem.;64;62.8"
```

#2b

```
com <- read[grepl("^//",read)]
com
```

```
## [1] "// Survey data. Created : 21 May 2013"
## [2] "// Field 1: Gender"
## [3] "// Field 2: Age (in years)"
## [4] "// Field 3: Weight (in kg)"
```

```
vect <- read[!grepl("^//", read)]
vect
```

```
## [1] "M;28;81.3"      "male;45;"      "Female;17;57,2" "fem.;64;62.8"
```

#3b

```
subsetCom <- com[1]
date <- gsub("//Survey data. Created:", "", subsetCom)
date
```

```
## [1] "// Survey data. Created : 21 May 2013"
```

```
cat ("It was Created,",date)
```

```
## It was Created, // Survey data. Created : 21 May 2013
```

```
vec_Split <- (strsplit(vect, ";"))
vec_Split
```

```
## [[1]]
## [1] "M"      "28"     "81.3"
##
## [[2]]
## [1] "male"   "45"
##
## [[3]]
## [1] "Female" "17"      "57,2"
##
## [[4]]
## [1] "fem."   "64"      "62.8"
```

#4b

```
max_vec <- max(length(vec_Split))
max_vec
```

```
## [1] 4
```

```
appendRow <- lapply(vec_Split, function(x) c(x,rep(NA, max_vec - length(x))))
appendRow
```

```
## [[1]]
## [1] "M"      "28"     "81.3" NA
##
## [[2]]
## [1] "male"   "45"     NA      NA
##
## [[3]]
## [1] "Female" "17"      "57,2"  NA
##
```

```
## [[4]]
## [1] "fem." "64"    "62.8" NA

#B4c

unlistdata <- unlist(appendRow)
unlistdata

## [1] "M"      "28"      "81.3"    NA        "male"    "45"      NA        NA
## [9] "Female" "17"      "57,2"    NA        "fem."    "64"      "62.8"    NA

dat_matrix <- matrix(unlistdata, ncol=4, nrow = 3,
                      dimnames = list(c("row1", "row2", "row3")))

## Warning in matrix(unlistdata, ncol = 4, nrow = 3, dimnames = list(c("row1", :
## data length [16] is not a sub-multiple or multiple of the number of rows [3]

dat_matrix

##      [,1] [,2] [,3] [,4]
## row1 "M"   NA   NA   "17"
## row2 "28"  "male" NA   "57,2"
## row3 "81.3" "45"  "Female" NA
```