Practical Exam

Abdul Azim P. Bansara

2024-03-06

1A. Find out, in a single command, which columns of warpbreaks are either numeric or integer. What are the data types of each column?

```
data("warpbreaks")

#the coloumn breaks are numeric
```

2A. How many observations does it have?

```
str(warpbreaks)
```

```
## 'data.frame':    54 obs. of  3 variables:
##  $ breaks : num  26 30 54 25 70 52 51 26 67 18 ...
##  $ wool   : Factor w/ 2 levels "A","B": 1 1 1 1 1 1 1 1 1 1 ...
##  $ tension: Factor w/ 3 levels "L","M","H": 1 1 1 1 1 1 1 1 1 2 ...
```

```
#there are 54 observation
```

3A. Is numeric a natural data type for the columns which are stored as such? Convert to integer when necessary.

```
intwarpbreaks <- warpbreaks

intwarpbreaks <- as.integer(warpbreaks)
```

```
## Error in eval(expr, envir, enclos): 'list' object cannot be coerced to type 'integer'
```

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

4A.Error messages in R sometimes report the underlying type of an object rather than the user-level class. Derive from the following code and error message what the underlying type. Explain what is the error all about. Do not just copy the error message that was displayed.

```
# it is error because it cannot forced to convert the list of object in data  to integer.
```

B. Load the exampleFile.txt

1B.Read the complete file using readLines.

```
fileread <- readLines("/cloud/project/PractExam/exampleFile.txt")
```

```
## Warning in readLines("/cloud/project/PractExam/exampleFile.txt"): incomplete
## final line found on '/cloud/project/PractExam/exampleFile.txt'
```

```
fileread
```

```
## [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.

```
commentvec <- fileread[grepl("//",fileread)]
commentvec
```

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

```
datavec <- fileread[grepl(";",fileread)]
datavec
```

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

3B.