EXERSCISE 1

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```
#1

data("warpbreaks")

warpbreaks_datatype <- sapply(warpbreaks, function(x) ifelse(is.numeric(x)| is.integer(x), class(x), NA
warpbreaks_datatype <-
warpbreaks_datatype[!is.na(warpbreaks_datatype)]
warpbreaks_datatype
```

```
##    breaks
## "numeric"
```

```
num_observations <- nrow(warpbreaks)
num_observations
```

```
## [1] 54
```

```
warpbreaks$breaks <- as.integer(warpbreaks$breaks)



write.csv(warpbreaks,"warpbreaks.csv")
```

A 1.

```
warpbreaks_datatype <- sapply(warpbreaks, is.numeric)
warpbreaks_datatype
```

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

```
#The data type of each column are breaks, wool and tension.
```

A 2.

```
num_observations <- nrow(warpbreaks)
num_observations
```

```
## [1] 54
```

```
 #There are 54 observations
```

A 3.

```
warpbreaks_datatype <- sapply(warpbreaks, function(x) ifelse(is.numeric(x)| is.integer(x), class(x), NA
warpbreaks_datatype <-
warpbreaks_datatype[!is.na(warpbreaks_datatype)]
warpbreaks_datatype
```

```
##    breaks
## "integer"
```

A 4.

```
#warpbreaks_datatype <- sapply(warpbreaks, function(x) ifelse(is.numeric(x) the error is about is in nu
```

```
#B1.

file_lines <- readLines("exampleFile.txt")
```

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

```
#B2.
comments <- file_lines[grepl("^#", file_lines)]
data_lines <- file_lines[!grepl("^#", file_lines)]
```

```
#B3.
date_string <- gsub("^# Date: ", "", comments[1])
cat("It was created  data", date_string, "\n")
```

```
## It was created  data NA
```

```
#B4.
#a
survey_data <- strsplit(data_lines, ";")

#b
max_fields <- max(sapply(survey_data, length))

for (i in seq_along(survey_data)) {
  survey_data[[i]] <- c(survey_data[[i]], rep(NA, max_fields - length(survey_data[[i]])))
}

#c
data_matrix <- matrix(unlist(survey_data), ncol = max_fields, byrow = TRUE)
#d
field_names <- unlist(strsplit(comments[2:4], ";"))
colnames(data_matrix) <- field_names

print(data_matrix)
```

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

```
write.csv(data_matrix,"survey data.csv")
```