

# STA 445 Assignment 2

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```
library(tidyverse)
library(readxl)
library(google Sheets4)
```

## Exercises

#1

Download from GitHub the data file by clicking on this link: [Example\\_5.xls](#). Open it in Excel and figure out which sheet of data we should import into R. At the same time figure out how many initial rows need to be skipped. Import the data set into a data frame and show the structure of the imported data using the `str()` command. Make sure that your data has `n=31` observations and the three columns are appropriately named. If you make any modifications to the data file, comment on those modifications.

```
Example_5 <- read_excel('RAW DATA/Example_5.xls',
  sheet = "RawData",
  skip = 4) %>%
  select(-(4:5)) # getting rid of the two NA columns
```

```
## New names:
## * ' ' -> '...4'
## * ' ' -> '...5'
```

```
str(Example_5)
```

```
## tibble [31 x 3] (S3: tbl_df/tbl/data.frame)
## $ Girth : num [1:31] 8.3 8.6 8.8 10.5 10.7 10.8 11 11 11.1 11.2 ...
## $ Height: num [1:31] 70 65 63 72 81 83 66 75 80 75 ...
## $ Volume: num [1:31] 10.3 10.3 10.2 16.4 18.8 19.7 15.6 18.2 22.6 19.9 ...
```

#2

Download from GitHub the data file by clicking on this link: [Example\\_3.xls](#). Import the data set into a data frame and show the structure of the imported data using the `tail()` command which shows the last few rows of a data table. Make sure the Tesla values are NA where appropriate and that both -9999 and NA are imported as NA values. If you make any modifications to the data file, comment on those modifications.

```
Example_3 <- read_excel('RAW DATA/Example_3.xls',
  sheet = "data",
  range = "A1:L34", # Selecting only the range of data we use
  na = c("NA", -9999.00)) # make NA and -9999.00 values NA value
tail(Example_3)
```

```
## # A tibble: 6 x 12
##   model      mpg   cyl  disp    hp  drat    wt   qsec    vs    am  gear  carb
##   <chr>    <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>
## 1 Lotus Europa 30.4     4  95.1   113  3.77  1.51  16.9     1     1     5     2
## 2 Ford Panter~ 15.8     8  351    264  4.22  3.17  14.5     0     1     5     4
## 3 Ferrari Dino 19.7     6  145    175  3.62  2.77  15.5     0     1     5     6
## 4 Maserati Bo~ 15        8  301    335  3.54  3.57  14.6     0     1     5     8
## 5 Volvo 142E   21.4     4  121    109  4.11  2.78  18.6     1     1     4     2
## 6 Tesla Model~ 98        NA   NA    778  NA    4.94  10.4    NA     0     1    NA
```