> IMPORTING DATA
> *R Programming*

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There are number of ways in importing data into R, and several formats are available,

- From Excel to R;

- from SPSS to R; and,

- from Stata to R, and more here.

In this post, we are going to talk about importing common data format that we often encounter, such as Excel and Text data. Most of the data are saved in MS Excel, and the best way to import this is to save this in CSV format, below is the procedure:

- Open your Excel data;

- go to **File** > **Save** As or press **Ctrl+Shift+S**;

- name this with anything you want, say "Data". Then before clicking **Save**, make sure to change the **File Format** to *Comma Delimited Text* and better set the directory to **My Documents** folder, for Windows;

- when saved, this file will have a name "Data.csv".

Now open R, and run the following

```
> MyRData <- read.csv("Data.csv", header = TRUE)
```

The argument `header = TRUE` tells R that the first row of the data are the labels of every column. If set to `FALSE`, means the first row of the data are not the labels, but are considered as data points.

Now in some cases, data are saved in Text (.txt) format. And to import this, we use the `read.table` function. Consider the data below, and say this is saved as **Data1.txt** in **My Documents** folder (for Windows).

```
College     Prof   Asct.Prof   Asst.Prof    Ins
CASS          30       21          23         19
CBAA           6        6           8          2
CED           15       12          13         14
COE           16       10           8          9
CON            0        1           9         12
CSM           45       36          28         15
```

```
IDS            6         6        10        9
SCS            4        10        11        10
SET           23        11         8        11
```

To import this to R, simply run,

```
> MyRData2 <- read.table("Data1.txt", header = TRUE)
```

Or apply `read.table` directly to the data

```
> MyRData3 <- read.table(header = TRUE,
          text = "College    Prof   Asct.Prof  Asst.Prof  Ins
                    CASS        30       21          23       19
                    CBAA         6        6           8       2
                    CED         15       12          13      14
                    COE         16       10           8       9
                    CON          0        1           9       12
                    CSM         45       36          28       15
                    IDS          6        6          10       9
                    SCS          4       10          11       10
                    SET         23       11           8       11")
```

There are times, however, when the Text data are saved in the internet, here is an example. To import this to R, of course, make sure of the internet connection first. Next, copy the URL of the data and assign this to any variable name, then apply `read.table`. Try the codes below,

```
> library(RCurl)
> web <- "https://raw.githubusercontent.com/alstat/
        Analysis-with-Programming/master/2013/R/
        How%20to%20Enter%20Your%20Data/Data.dat"
> x <- getURL(web)
> y <- read.table(text = x, header = TRUE)

# OUTPUT
  id      Code S3 S2 S1 S1.1 S2.1 S3.1 Weight.class
  1   Slope1  6  4  2   NA   NA   NA            NA
  2   Slope2 16  8  4   NA   NA   NA            NA
  3   Slope3 30 16  8   NA   NA   NA            NA
  4    Flood  2  1  1   NA   NA   NA            NA
  5 Drainage  3  3  2   NA   NA   NA            NA
```

Labels

R, Tutorial,