Workshop on Doing Data Analysis

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Introduction

This is an R Markdown document to introduce you to R and Rstudio. (For more details on using R Markdown see http://rmarkdown.rstudio.com).

To learn more about R and Rstudio go to QickR clicking this link: http://www.statmethods.net/

```
print("this is code")
```

Computer code (above) will lead to an action on the screen (below) looking like this:

```
## [1] "this is code"
```

Below is text explaining what happend: You called the function *print* and it printed the string between the brackets. Try printing hello world..., note what is printed needs to be between the brackets and if it is a string in double quotation marks.

First Step: Calculating something

```
# Commenting
# Simple calculations
5+5
```

```
## [1] 10
```

```
6^2
```

```
## [1] 36
```

```
2^8
```

```
## [1] 256
```

```
2.4 * 4.5
```

```
## [1] 10.8
```

```r
3/5
```

```
## [1] 0.6
```

```r
(3+3)* 4+5
```

```
## [1] 29
```

```r
# Square Root
sqrt(4)
```

```
## [1] 2
```

Second Step: Generating Data

```r
# a sequence
1:10
```

```
##  [1]  1  2  3  4  5  6  7  8  9 10
```

```r
# Assigning (putting numbers into) variables
a<- 4
b<-5
a*b
```

```
## [1] 20
```

```r
c <- 1:10
# c
```

Third Step: Your workspace

```r
getwd() # print the current working directory - cwd
```

```
## [1] "C:/Users/Micheal/Dropbox/Professional/Teaching and presentations/ASA-IARS-PGA/seminar/Doing Data
```

```r
ls()    # list the objects in the current workspace
```

```
## [1] "a" "b" "c"
```

```r
# Set your working directory

# setwd("C:/Users/Micheal/Dropbox/Professional/Teaching and presentations/ASA-IARS-PGA/seminar/Doing Da
```

Fourth Step: saving and loading data

```r
#Save your workspace
save(a, b, c, file = "mydata.Rdata")

# Clean workspace
rm(list=ls())

# Load your saved data
load("mydata.Rdata")
```

Fifth Step: Different data types