Troubleshooting Problems in R

# Objectives of this tutorial

* Discuss Error Messages in R
* Illustrate how to get help and use the help command
* Introduce more practice opportunities with DataCamp

## Troubleshooting Problems

**Error Messages in R**

It is inevitable that at some point you will make a mistake in R or your code will not do what you wanted it to do. Do not panic! This is a part of the learning process.

**Steps for dealing with problems:**

1. **Read the error message and read over your code to make sure you have not made any spelling errors or punctuation (like a comma or parentheses) in commands or variable names.** R thinks things like Mean(x) and mean(x) are two different things. R will not give you an average when you type Mean(x).
2. **Google It! If you get an error message, copy and paste it into a google search window**. Chances are, someone else has had that error as well and will probably know how to fix it!
3. **Ask your Teacher, your TA or a friend for help!** If you cannot figure out the problem, ask someone. Be sure to include a screen shot of your code and the error message. Be specific as to what you are trying to accomplish or fix.

Let's discuss a couple of common error messages that you might receive:

##### Forgetting to close your parenthesis:

mean(class$height

Run the line above and note that, now, instead of the > appearing in the lower left R console window, a + appears instead. This is a huge indicator that you have forgotten to close a parenthesis. In fact, R does not even give you an Error message: it's just waiting for you to close the parentheses.

##### Remember R is case sensitive

mean(Height)

Here, R gives the error message

Error in type of(x) : object 'Height' not found

This is because R is case sensitive. We called our variable height, which is different from Height.

##### Forgetting a comma

class <- data.frame(names, height, GPA major)

Here, we forgot the comma between GPA and major. R gives the error

Error: unexpected symbol in “class <- data.frame(names, height, GPA major”

The point is that we all WILL make errors in coding. DO NOT PANIC!! Look for some of these common errors (forgetting a parentheses, forgetting a comma, forgetting quotes, upper or lower case letters, spelling). There will be others.

# Help with R

If any feature or function in R confuses you, or if you just would like to learn more, there are lots of resources online, for example, www.r-tutor.com. Information about the code most commonly used in this class is collected in the *R Reference* document on Canvas. Finally, you can look up the help documentation by searching the function in RStudio's **Help** pane or for any function type the function name within the command help(). Example help(mean).

## More Practice with R in Data Camp

The R tutorials will walk you through what you need to know for this course, but if you are looking for more practice, you are encouraged to use the online tutorials in DataCamp, an online instructional tool for coding in R.

To practice in **DataCamp**, go to [www.datacamp.com](http://www.datacamp.com). you will need to create a free account. To learn more about coding in R we recommend **“Introduction to R”** under *R Programming*. We also recommend **“Intro to Statistics with R: Introduction”** under *Statistical Modeling*, which provides step-by-step instruction on many of the topics we cover in the first part of this course.