Lab 0 - Installing R and RStudio

# Introduction

This week there is no lab - you are simply working to get R and RStudio up and installed on your computer. This lab walks you through how to do that, as well as how to set a few things in RStudio for an easier to read experience.

# Learning Outcomes

By the end of this lab you should be able to:

* Install R and RStudio
* Open RStudio, rather than R
* Set your text size in RStudio
* Set your text to nicely wrap to avoid scrolling
* Set up RStudio to work with screen readers
* Find RStudio Cloud if none of the above works

# Part 1 - Install R

If you just google “Install R” you’ll eventually find yourself at an endless list of URLs separated by country and university. They mostly end with **CRAN**, which is shorthand for **Comprehensive R Archive Network**. It doesn’t really matter, it just means that you click any of these URLs and download R from there. If you’re overwhelmed by your choices, here’s one for you: <https://ftp.osuosl.org/pub/cran/>

Click the download button for your appropriate operating system. If you work on Google Chromebook… none of this will work for you, please skip down to Part 5.

Once R is downloaded, click install. That’s it for R, now head to RStudio.

# Part 2 - Install RStudio

You’ll want the free RStudio for Desktop, available here: <https://rstudio.com/products/rstudio/download/#download> Click download and then install the software. It’s easiest if you’ve done part 1 first - sometimes things get screwed up if you install these not in order.

# Part 3 - Open RStudio

So R and RStudio are two different things. R is the language, RStudio is the “make it less scary” wrapper. You can run everything we’re doing in R, but it is a little harder so that’s why we stick with RStudio.

Frequently, I see students open R rather than RStudio and then wonder where all the pieces are. RStudio should open with three different windows - the Console, the Environment, and the Plot window. If there’s only one window, then you’ve opened R instead!

# Part 4 - Customize RStudio

## Part 4.1 Change Text Size

This is particularly helpful if you are asking your professor for tech support, so she doesn’t have to squint in pain while trying to read your window. To change the size of your text, go to Tools, click Global Options, click Appearance, and then change the Zoom dropdown bar to your appropriate size of font.

## Part 4.2 Soft-Wrap R Scripts

When you start working in scripts, it’s really obnoxious to have to scroll right and left to read your lines of code. To avoid this, you’ll tell RStudio to Soft-Wrap your files. Go to Tools, click Global Options, click Code, then check the box that says “Soft-Wrap R Source Files.” Then click okay.

It might tell you that you have to restart RStudio - you don’t, it is lying.

## Part 4.3 Enable Screen Reader

If you would like to use a text reader, RStudio is admittedly pretty limited. It does have some options however. To enable them, go to Tools, Global Options, Accessibility, then click the box next to Screen Reader Tools. It will ask you to restart RStudio, and it is serious about that!

I have heard that R works better than RStudio for screen readers, so if you’re using screen readers and getting frustrated you may want to switch to R itself. Alternately, RStudio Cloud actually works better than RStudio for screen readers as well. To learn about cloud, go to part 5!

# Part 5 - RStudio Cloud

If you have a Chromebook, you won’t be able to work in RStudio. However, you can use a free cloud version for the duration of this class. Go to <https://rstudio.cloud/> and click the free version. Make an account, and you can use RStudio Cloud like you would regular RStudio. There is a project limit and, starting in fall of 2021, there will be a time limit as well which is why I only recommend the cloud as a backup.

That’s it! Next week we will start actually using this software. For now, admire your accomplishment I suppose, and try not to be too unnerved by RStudio’s vast, open windows. You’ll conquer them soon enough!