



Background

Some background information on R, a statistical programming language we will use throughout this class

Background on

- “Free software environment for statistical computing and graphics”
- History of R:
 - R is based on the S statistical programming language developed by John Chambers at Bell labs in the 1980’s.
 - R is an open-source implementation of the S language.
 - Developed by Robert Gentleman and Ross Ihaka at U Auckland.
 - Today R is pervasive in statistics and data science
- Facets of R:
 - R is an interactive, object-oriented programming environment
 - R provides access to a huge number of statistical and data science functions
 - Statisticians around the world contribute add-on packages

R Installation Instructions

Follow these steps to get R installed on your personal computer

Installing

- Go to <http://www.r-project.org/> (or just type “R” into Google)
- Click on “CRAN Mirror” under “Getting Started”
 - Click on one of the USA CRAN mirror sites
 - Click on “Download R for Windows” (or Mac or Linux, depending on your OS)
 - For Windows:
 - Click on “base”
 - Right-click on “Download R 4.0.0 for Windows”
 - For Mac:
 - Download the R-4.0.0.pkg, and follow the instructions
- Follow the instructions, just accept all of the defaults
 - It is like installing any other piece of software

Installing Studio®

- Go to the R studio website: <http://www.rstudio.com/>
 - (or type “RStudio” into Google)
- Click the “Learn More” button



Installing Studio®

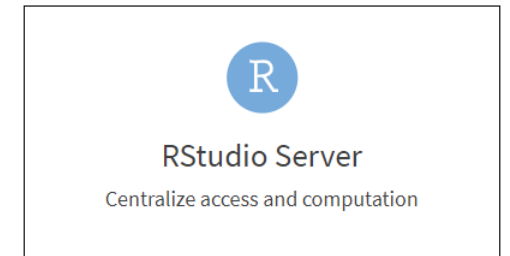
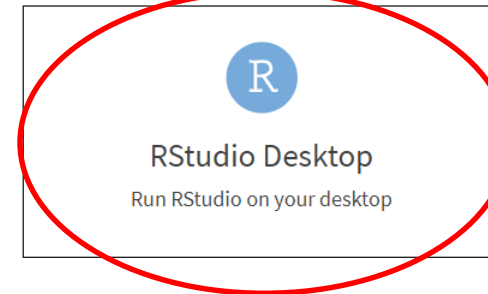
- Click on “RStudio Desktop” and download the free Open Source Edition
- Click the link for the version recommended for your system and follow the instructions
 - Accept all of the defaults in the Setup Wizard

New in RStudio 1.3

From spell check to a new tutorial pane, there is a lot to love. Now connect remote sessions between RStudio Desktop Pro and RStudio Server pro, for higher performance and freedom of local resources.

[Read the announcement.](#)

There are two versions of RStudio:



R Documentation

- Documentation is available from within the R software itself:
 - Click on “Manuals” in the “Help” dropdown in the R Console
 - Or on Help -> RStudio Docs within R Studio
- Some Helpful links:
 - Intro to R by UW-Madison Professor Margie Rosenberg, <https://pubs.wsb.wisc.edu/academics/analytics-using-r-2019/>
 - DataCamp’s Free R Tutorial, <https://www.datacamp.com/courses/free-introduction-to-r>