## Available R packages

To make the most of R for your data analysis, you will need to install packages. **Packages** are units of reproducible R code that you can use to add more functionality to R. The best part is that the R community creates and shares packages so that other users can access them! In this reading, you will learn more about widely used packages and where to find them.



Packages can be found in repositories, which are collections of useful packages that are ready to install. You can find repositories on **Bioconductor**, **R-Forge**, **rOpenSci**, or **GitHub**, but the most commonly used repository is the Comprehensive R Archive Network or **CRAN**. CRAN stores code and documentation so that you can install packages into your own RStudio space.

## Package documentation

Packages will not only include the code itself, but also documentation that explains the package's author, function, and any other packages that you will need to download. When you are using CRAN, you can find the package documentation in the DESCRIPTION file.

Check out Karl Broman's R Package Primer to learn more.

## Choosing the right packages

With so many packages out there, it can be hard to know which ones will be the most useful for your library or directory of installed packages. Luckily, there are some great resources out there:

- <u>Tidyverse</u>: the tidyverse is a collection of R packages specifically designed for working with data. It's a standard library for most data analysts, but you can also download the packages individually.
- Quick list of useful R packages: this is RStudio Support's list of useful packages with installation instructions and functionality descriptions.
- <u>CRAN Task Views</u>: this is an index of CRAN packages sorted by task. You can search for the type of task you need to perform and it will pull up a page with packages related to that task for you to explore.

You will discover more packages throughout this course and as you use R more often, but this is a great starting point for building your own library.

## R resources for more help



The R community is full of dedicated users helping each other find solutions to problems and new ways of using R. There are also a lot of great blogs where you can find tutorials and other resources. Here are a few of them:

- RStudio: The best place to find help with R is in R itself! You can input '?' or the help() command to search in R. You can also open the Help pane to find more R resources.
- RStudio Blog: RStudio's blog is a great place to find information about RStudio, including company news. You can read the most recent <u>featured posts</u> or use the search bar and the list of categories on the left side of the page to explore specific topics you might find interesting or to search for a specific post.
- Stack Overflow: The Stack Overflow blog posts opinions and advice from other coders. This is a great place to stay in touch with conversations happening in the community.
- R-Bloggers: The R-Bloggers blog has useful tutorials and news articles posted by other R
  users in the community.
- R-Bloggers' tutorials for learning R: This blog post from R-Bloggers compiles some basic R tutorials and also links to more advanced guides.