Lab 2: Working with datasets

PSC 103B - Spring 2024

Installing and loading packages

There are many functions available in base R. By this I mean, if you open R right after installing it, there are a number of functions already available for you to use. All the functions we've used in last week's lab are base R functions. They're available as soon as you install R.

But we can add more functions (other than the ones available in base R), by installing and loading packages that contain different functions.

There's something important to understand about packages. There is a difference between installing and loading a package. First, you have to install the package. This downloads it onto your computer and puts it somewhere R can find it. You only have to install a package once (unless you uninstall and install R again).

We can use the `install.packages()` function to do this. The name of the package goes in the parenthesis and must be **inside quotation marks**!

```
install.packages("tidyverse", dependencies = TRUE)
```

`dependencies = TRUE` will tell your computer to also install any packages that package needs to work properly. This usually makes for a smoother installation process. While you are doing this, you may be prompted to answer a question with yes (y) or no (n). You should answer that by typing y in the console and pressing enter. It's generally safe to answer the questions with yes if you don't understand them.

After installing the package it is now on your computer. And you can easily use it **after** loading the package. Every time you open R you must load (But not install!) all the packages you want to use. You can use the library() function to do this. And you don't need quotation marks.

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.3     v readr     2.1.4
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.4     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.0
## v purrr     1.0.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

Summary:

- A package must be installed before it can be loaded (use `install.packages()`).
- A package must be loaded before it can be used (use `library()`).