Chapter 1

The software R

R is not a program that uses a sophisticated graphical user interface, as for example Microsoft Word is. Instead, R can be accessed and used by only writing text, without using the mouse.

R in its core really is a programm based on text instructions, also called commands. R can receive commands in two ways: The first is to read a whole file with the extension .R. Each line instructs R to do something. The second variant is interactive: the user types a command and then presses enter.

The following demonstration shows this way of working with R. Later, we will use a program called RStudio that is much more convenient to work with because it features a sophisticated graphical user interface. Even in Rstudio though, R commands are written in text.

Note that if you install R, a programm that is called *Rgui* will also be installed. This is the standard user interface for R, but we will work instead with RStudio.

The goal of this demonstration is to point out that R at its core is not dependent on windows or menus, but only on text.

- Windows users: → Go to the directory where you installed R, and open the bin directory, this is usually like `C:\R \R-3.6.3\bin` (the version number is likely to vary). Then doubleclick on R.exe

- Mac users: → Look for `R` using either the dock, the launchpad, finder, or the spotlight search, then start it.

A terminal will open. Write the following text and press enter (See Figure 1.1):
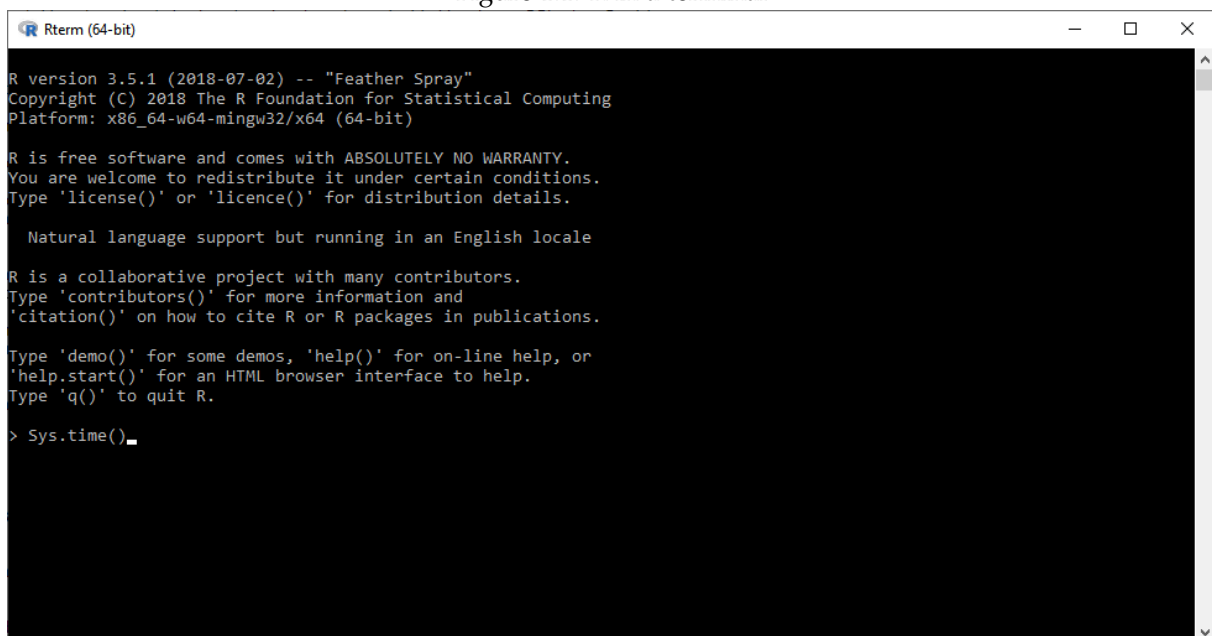
```
Sys.time()
## [1] "2021-06-06 19:34:11 CEST"

# latex rootdir: contains parent mantated prefix for files locations
```

The current system time will appear. Congratulations! You just run your first command using R.

> **Own experimentation**
>
> Run play around with the `demo()` function, for example try to execute `demo("graphics")`.

Figure 1.1: R in a terminal