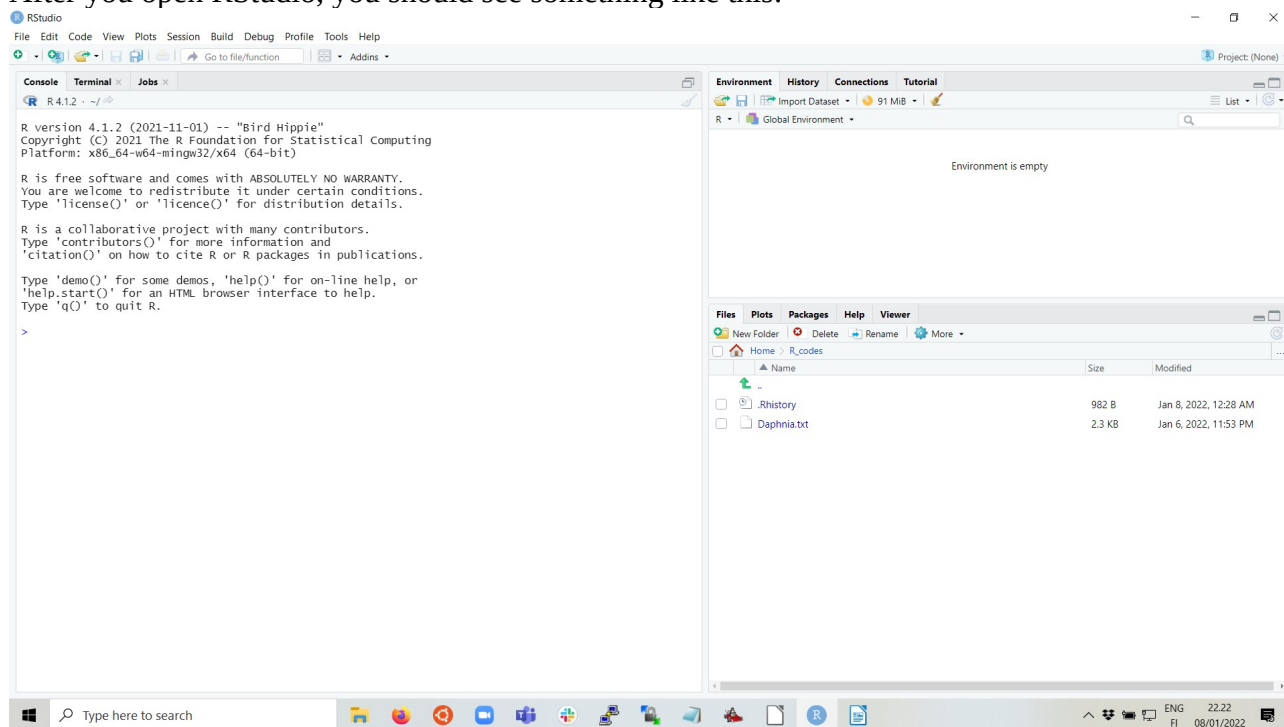


# What are R and RStudio?

At its simplest, R is like a car's engine while RStudio is like a car's dashboard: we are using R command in RStudio.

After you install R and RStudio on your computer, you'll have two new *programs*. We always work in RStudio and **not** in the R application.

After you open RStudio, you should see something like this:



There are three *panes* which are three panels dividing the screen: the *console pane*, the *files pane*, and the *environment pane*.

**Console pane** is where you can run commands. It works similarly as Python shell. You can type commands and press enter. For instance, type  $3 + 5 + 3$  in console and press enter.

**Files pane** shows the current directory, where you can load R-files (we will show this later). Also

- plots (pictures) will be shown in this window
- packages can be installed here
- R has a help (more later)

**Environment pane** is very useful as it shows you what objects (i.e., dataframes, arrays, values and functions) you have in your environment (workspace).

RStudio can also be used for editing R scripts. There are two ways:

- You can create a new file: File > New File > R Script  
After that a fourth page appears. You can edit your code in the **edit pane**. After editing, you can save your file: File > Save / Save As...
- Another way is to **open** an existing file. Locate the file in Files pane and double click on it. The file appears on the **edit pane**.

## Sample R code

- Unless you do not already have it, create a folder “R\_codes” under “Documents” in Windows
- Download the file “sampleRcode.R” from Moodle and save it to that folder.
- Double click the file in **files pane**, so the script appears in the editor
- Study the commands and run them one by one.