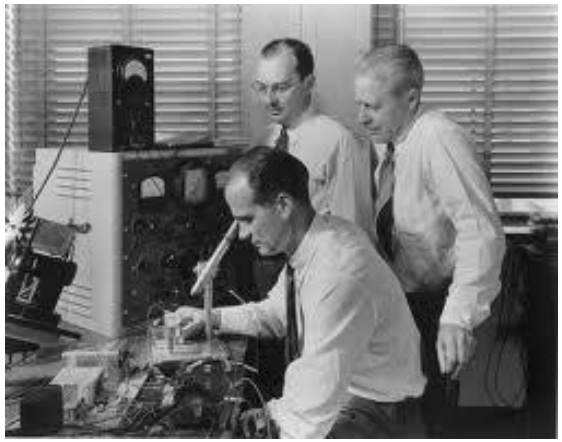
Introduction to ‘R’ Programming
Interfaces: R console and R studio

AGENDA

- History and evolution of R
- Description of R Studio interface

HISTORY AND EVOLUTION OF R

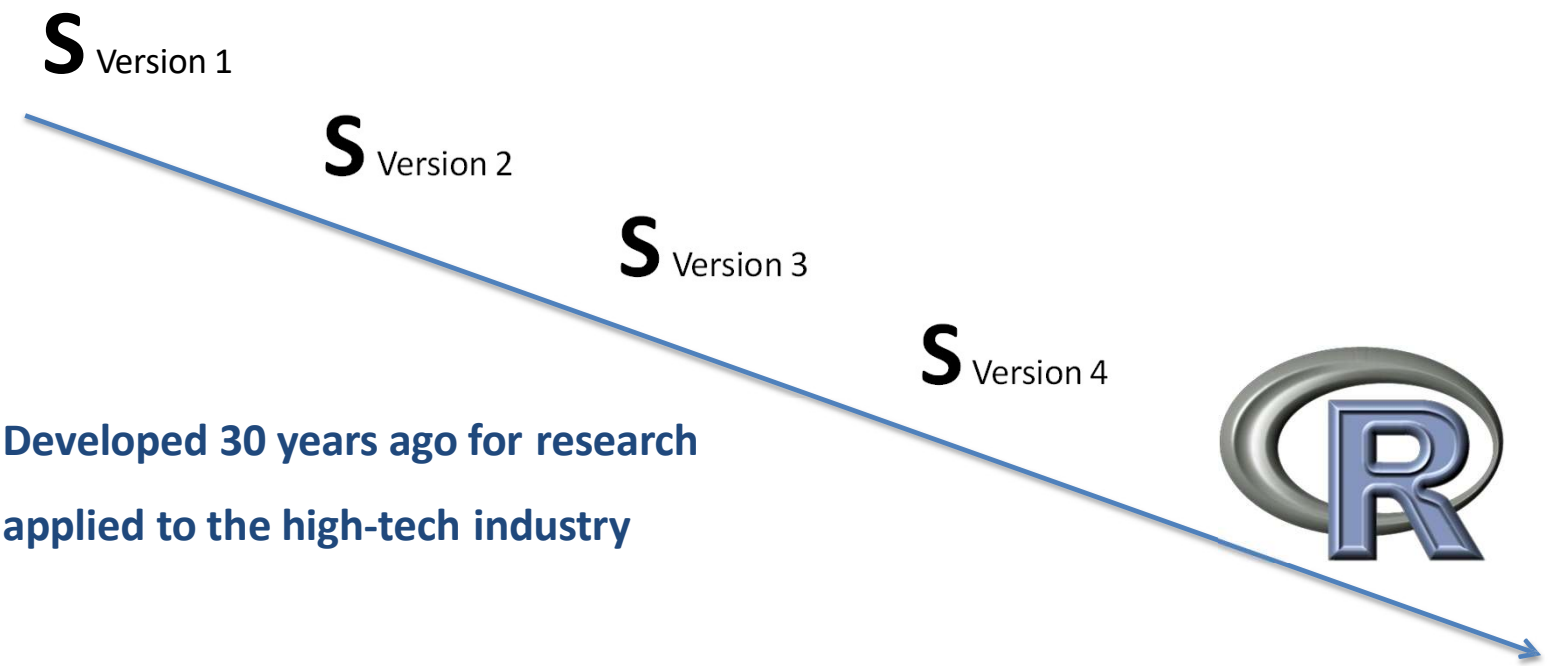
Origin in the Bell Labs in the 1970's



Bell Laboratories

HISTORY AND EVOLUTION OF R

R has developed from the S language



Developed 30 years ago for research

applied to the high-tech industry

Installing R

- Download R Package from
  - https://cran.r-project.org/
  - Click on the Windows specific link and finally the download of an executable file R-3.x.x.exe.
  - https://cran.r-project.org/bin/windows/base/R-3.5.3-win.exe

How to get help in R

- R includes extensive facilities for accessing documentation and searching for help.
- R Help: help() and ?
  - The help() function and ? help operator in R provide access to the documentation pages
  - To access documentation for the standard lm (linear model) function, for example, enter the command help(lm) or help("lm"), or ?lm or ?"lm" (i.e., the quotes are optional).
  - You may also use the help() function to access information about a package in your library — for example, help(package="MASS") — which displays an index of available help pages for the package along with some other information.
- Help pages for functions usually include a section with executable examples illustrating how the functions work.
- You can execute these examples in the current R session via the example() command: e.g., example(lm).

Installing R Studio

- Go on the official website of RStudio - https://www.rstudio.com/
- Go to www.rstudio.com and click on the "Download RStudio" button.
- Click on "Download RStudio Desktop."
- Windows: Click on the version recommended for your system, or the latest Windows version, and save the executable file. Run the .exe file and follow the installation instructions.

- https://download1.rstudio.org/RStudio-1.1.463.exe

R Studio Overview

- The RStudio open source and commercial Integrated Development Environment is the premier IDE for the R programming language.
- RStudio project already provides nearly all the desired features for an IDE, making it easier and more productive to use R.
- The main components of an IDE are all nicely integrated into a four-pane layout
  - Console for interactive R sessions. Location were commands are entered and the output is printed
  - A tabbed source-code editor. Its as built-in text editor.
  - Environment & History Tab. It's a interactive list of loaded R objects and shows list of key strokes entered into the Console
  - Files, Plots, Package, Help:
    - Files: File explorer to navigate folders
    - Plots: Output location for plots
    - Packages: List of installed packages
    - Help: Output location for help commands and help search window


Thank
you !!!