**R**

R is a language and environment for statistical computing and graphics.

R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

R provides a wide variety of statistical (linear and nonlinear modelling, classical statistical tests, time-series analysis, classification, clustering,) and graphical techniques, and is highly extensible. The S language is often the vehicle of choice for research in statistical methodology, and R provides an Open Source route to participation in that activity.

One of R’s strengths is the ease with which well-designed publication-quality plots can be produced, including mathematical symbols and formulae where needed. Great care has been taken over the defaults for the minor design choices in graphics, but the user retains full control.

* an effective data handling and storage facility,
* a suite of operators for calculations on arrays, in particular matrices,
* a large, coherent, integrated collection of intermediate tools for data analysis,
* graphical facilities for data analysis and display either on-screen or on hardcopy, and
* a well-developed, simple and effective programming language which includes conditionals, loops, user-defined recursive functions and input and output facilities.

**The R environment**

R is an integrated suite of software facilities for data manipulation, calculation and graphical display. The term “environment” is intended to characterize it as a fully planned and coherent system, rather than an incremental accretion of very specific and inflexible tools, as is frequently the case with other data analysis software [[[1]](#endnote-1),[[2]](#endnote-2)].

**R Studio**

R Studio is an integrated development environment for R, a programming language for statistical computing and graphics [[[3]](#endnote-3)].

**Github**

GitHub is an American company that provides hosting for software development version control using Git [[[4]](#endnote-4)].

1. [] What is R? URL: <https://www.r-project.org/about.html>. Accessed on 5/11/2019 [↑](#endnote-ref-1)
2. []R (programming language). URL: <https://en.wikipedia.org/wiki/R_(programming_language)>. Accessed on 5/11/2019 [↑](#endnote-ref-2)
3. []Rstudio. URL: <https://en.wikipedia.org/wiki/RStudio>. Accessed on 5/11/2019 [↑](#endnote-ref-3)
4. []Git and GitHub. URL: <https://github.com/>. Accessed on 5/11/2019 [↑](#endnote-ref-4)