



Vector



- 1 column or row of data
- 1 type (numeric or text)

Matrix



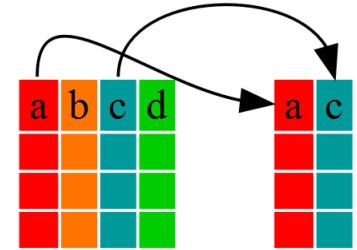
- multiple columns and/or rows of data
- 1 type (numeric or text)

Data Frame

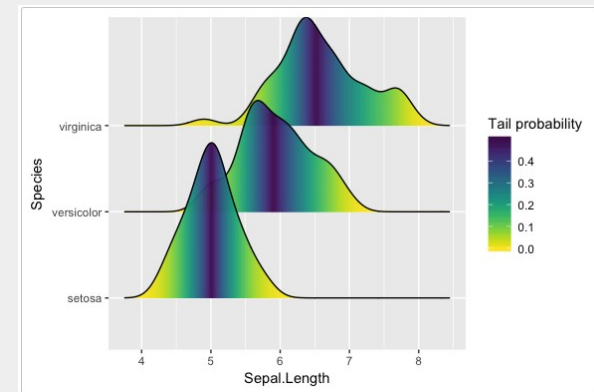
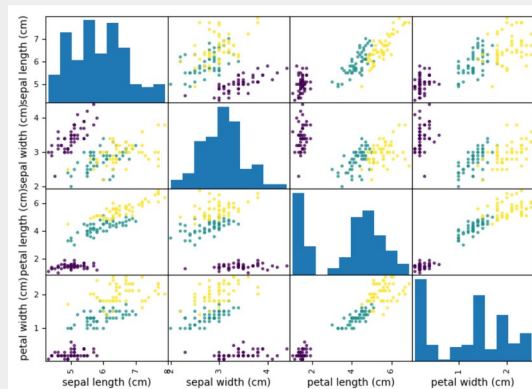
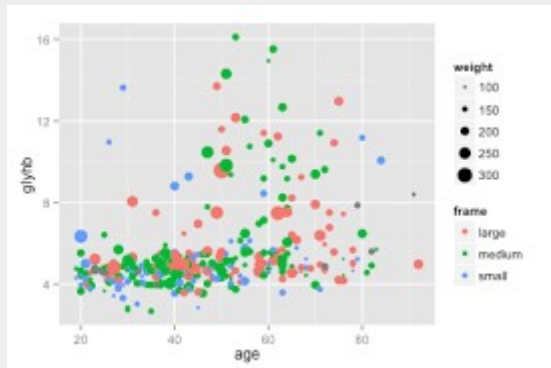


- multiple columns and/or rows of data
- multiple types

```
select(data.frame,a,c)
```



Um guia para iniciantes em R



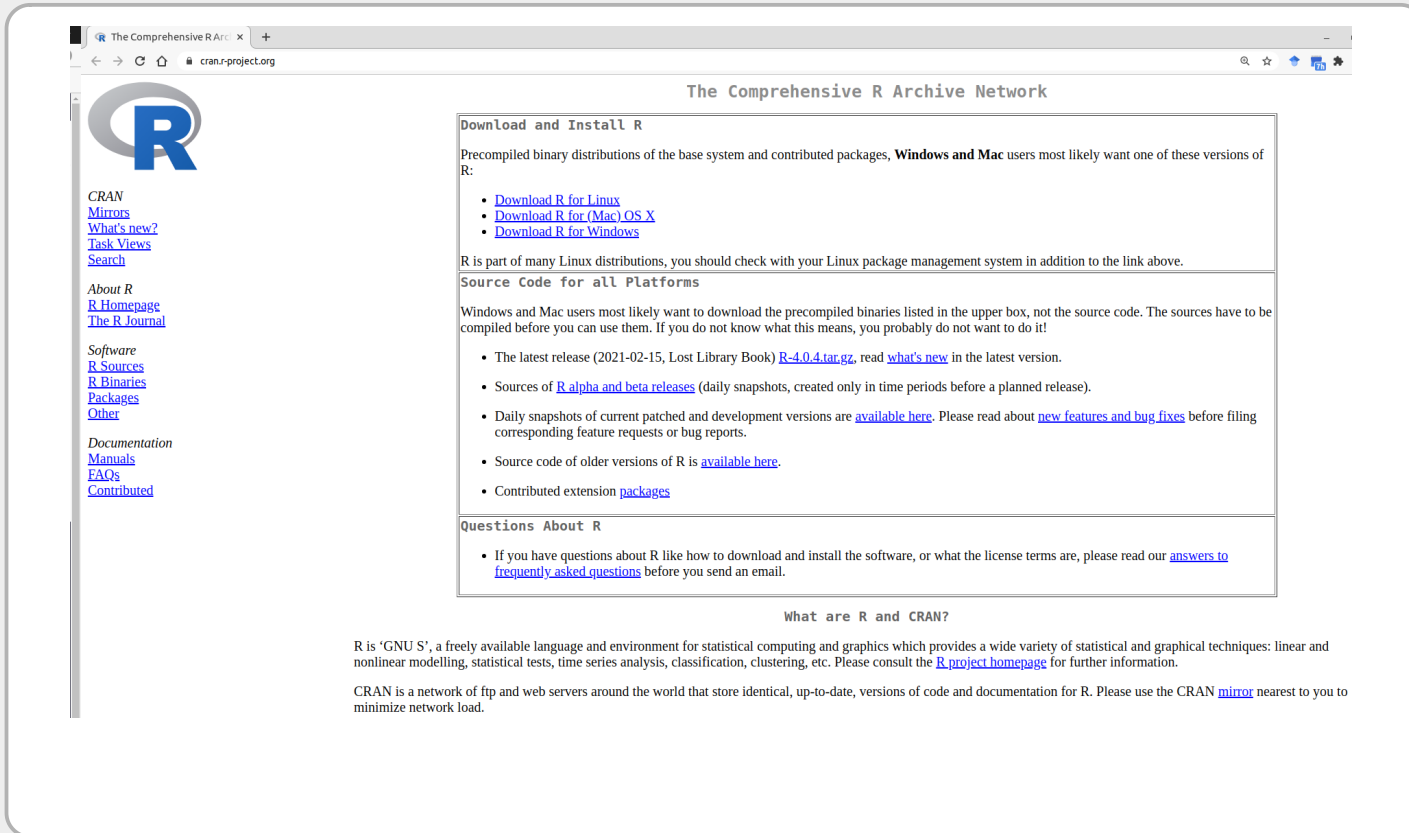
Um guia para iniciantes em R

R: O que Faz e como o Faz

Ross Ihaka e Robert Gentleman



Um guia para iniciantes em R

A screenshot of the CRAN (Comprehensive R Archive Network) website. The browser window shows the URL 'cran-project.org'. The page has a sidebar on the left with links for CRAN, Mirrors, What's new?, Task Views, Search, About R, R Homepage, The R Journal, Software, R Sources, R Binaries, Packages, Other, Documentation, Manuals, FAQs, and Contributed. The main content area is titled 'The Comprehensive R Archive Network' and contains sections for 'Download and Install R', 'Source Code for all Platforms', and 'Questions About R'. The 'Download and Install R' section provides links for Linux, Mac OS X, and Windows. The 'Source Code for all Platforms' section provides links for the latest release, alpha and beta releases, daily snapshots, and older versions. The 'Questions About R' section provides a link to frequently asked questions.

The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for \(Mac\) OS X](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (2021-02-15, Lost Library Book) [R-4.0.4.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

Questions About R

- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

What are R and CRAN?

R is 'GNU S', a freely available language and environment for statistical computing and graphics which provides a wide variety of statistical and graphical techniques: linear and nonlinear modelling, statistical tests, time series analysis, classification, clustering, etc. Please consult the [R project homepage](#) for further information.

CRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. Please use the CRAN [mirror](#) nearest to you to minimize network load.

<https://cran.r-project.org/>

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The R Base Package

<u>close</u>	Functions to Manipulate Connections (Files, URLs, ...)
<u>close.srcfile</u>	References to Source Files and Code
<u>close.srcfilealias</u>	References to Source Files and Code
<u>closeAllConnections</u>	Display Connections
<u>closure</u>	Function Definition
<u>code_point</u>	Convert Integer Vectors to or from UTF-8-encoded Character Vectors
<u>col</u>	Column Indexes
<u>collation</u>	Relational Operators
<u>colMeans</u>	Form Row and Column Sums and Means
<u>colnames</u>	Row and Column Names
<u>colon</u>	Colon Operator
<u>colSums</u>	Form Row and Column Sums and Means
<u>commandArgs</u>	Extract Command Line Arguments
<u>comment</u>	Query or Set a "comment" Attribute
<u>Comparison</u>	Relational Operators



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```
Terminal

R version 3.6.3 (2020-02-29) -- "Holding the Windsock"
Copyright (C) 2020 The R Foundation for Statistical Computing
Platform: x86_64-pc-linux-gnu (64-bit)

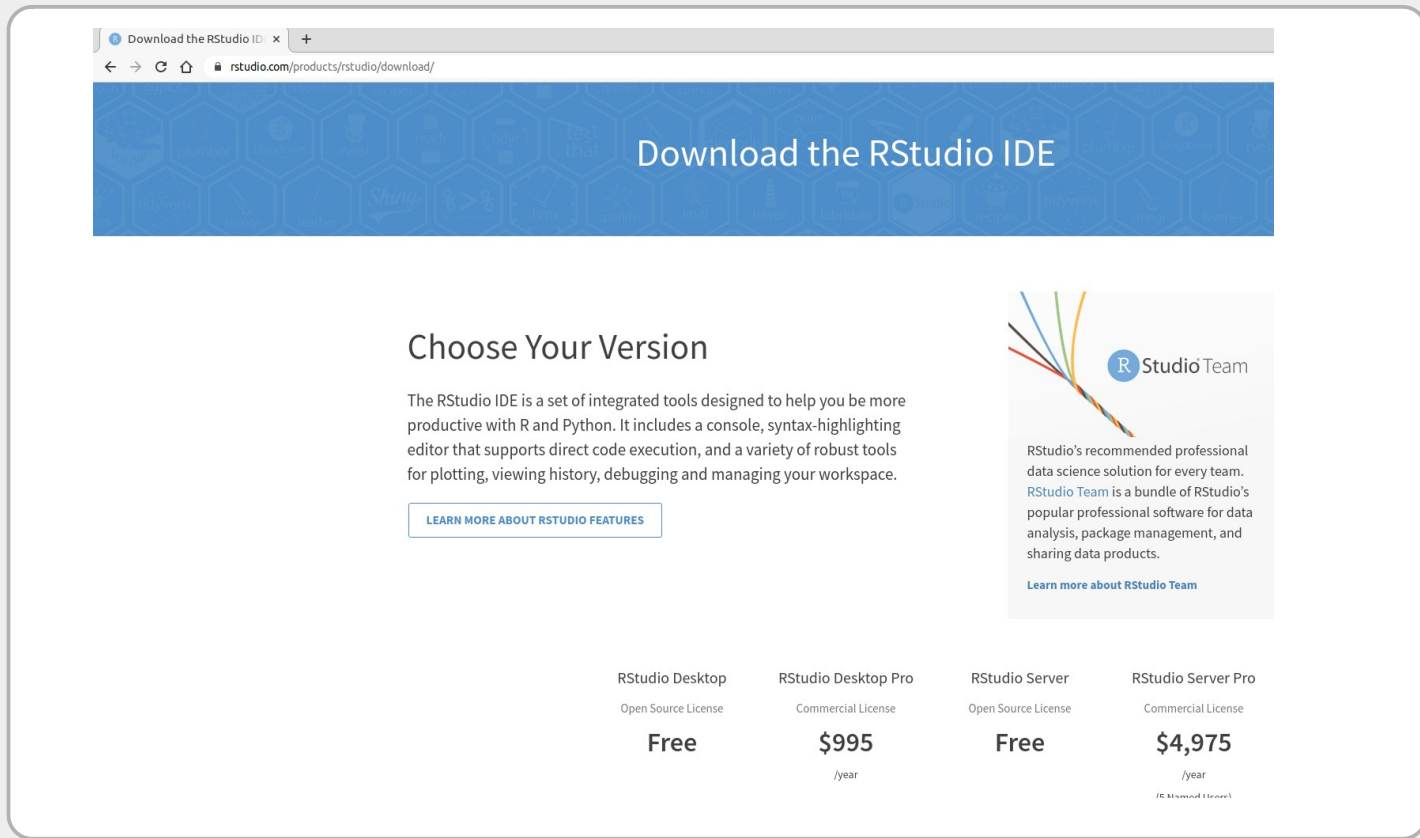
R é um software livre e vem sem GARANTIA ALGUMA.
Você pode redistribuí-lo sob certas circunstâncias.
Digite 'license()' ou 'licence()' para detalhes de distribuição.

R é um projeto colaborativo com muitos contribuidores.
Digite 'contributors()' para obter mais informações e
'citation()' para saber como citar o R ou pacotes do R em publicações.

Digite 'demo()' para demonstrações, 'help()' para o sistema on-line de ajuda,
ou 'help.start()' para abrir o sistema de ajuda em HTML no seu navegador.
Digite 'q()' para sair do R.

> 2+3
[1] 5
> x<-rnorm(10)
> y<-rnorm(10)
> plot(x,y)
>
```

Um guia para iniciantes em R



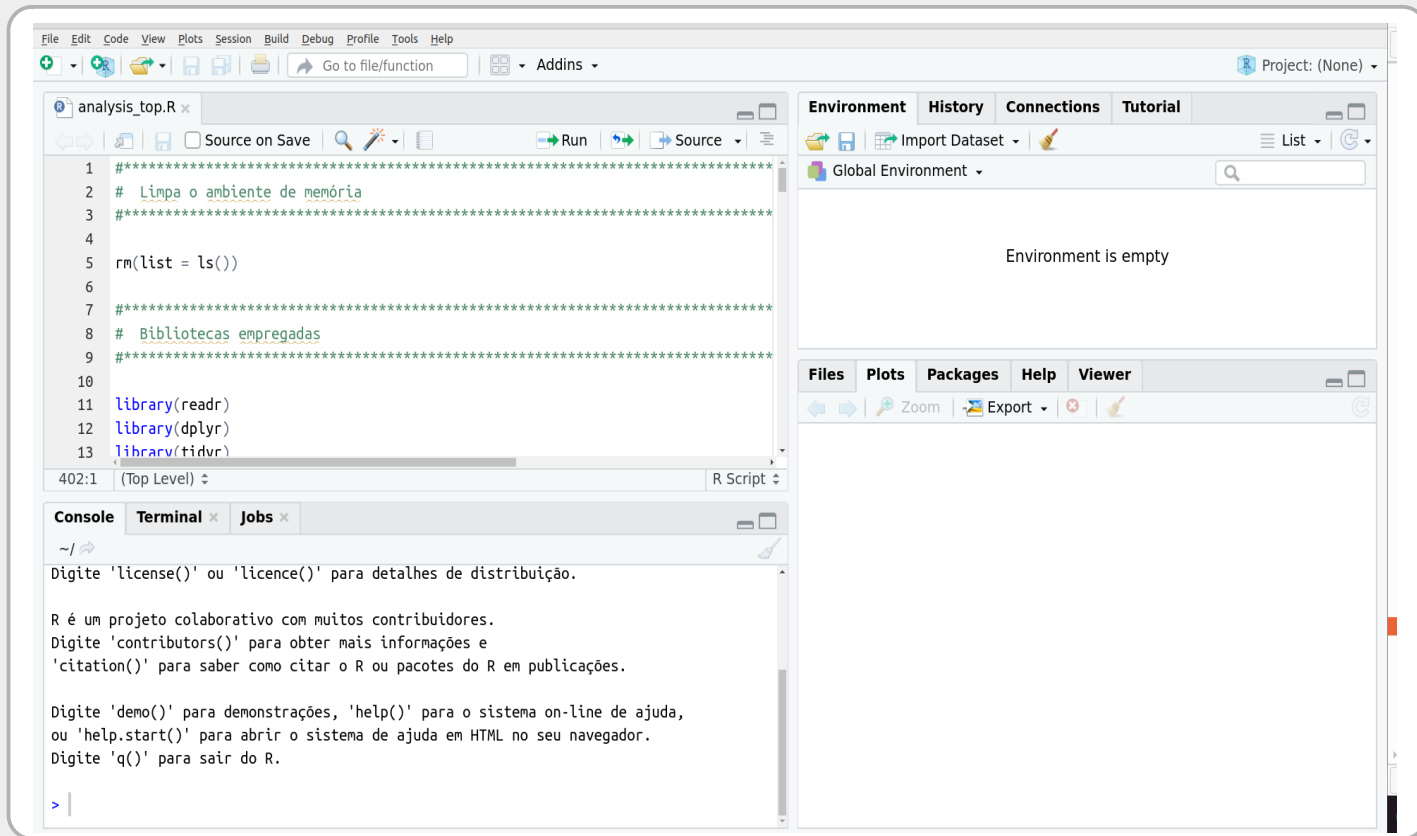
The screenshot shows the RStudio download page. At the top, there's a blue banner with the text "Download the RStudio IDE". Below this, the heading "Choose Your Version" is followed by a paragraph describing the RStudio IDE as a set of integrated tools for R and Python. A button labeled "LEARN MORE ABOUT RSTUDIO FEATURES" is present. To the right, there's a section for "RStudio Team" with a description of it as a professional data science solution. At the bottom, a table lists four versions: RStudio Desktop (Open Source License, Free), RStudio Desktop Pro (Commercial License, \$995/year), RStudio Server (Open Source License, Free), and RStudio Server Pro (Commercial License, \$4,975/year).

RStudio Desktop	RStudio Desktop Pro	RStudio Server	RStudio Server Pro
Open Source License	Commercial License	Open Source License	Commercial License
Free	\$995/year	Free	\$4,975/year



<https://rstudio.com/products/rstudio/>

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