

KNow me! R

Zulquar Nain

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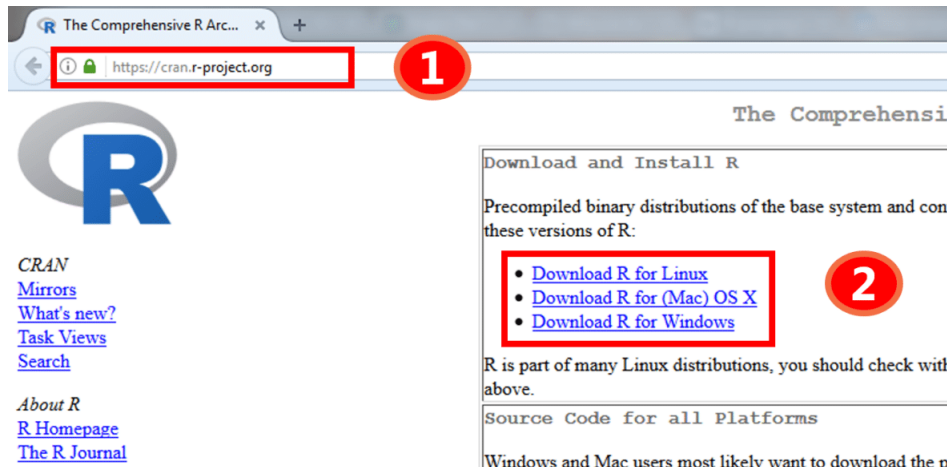
Let's start



# Let's Start!

## Installation of

- STEP1: Go to the website <https://cran.r-project.org/>
- Step 2 : Download and install R on your system.



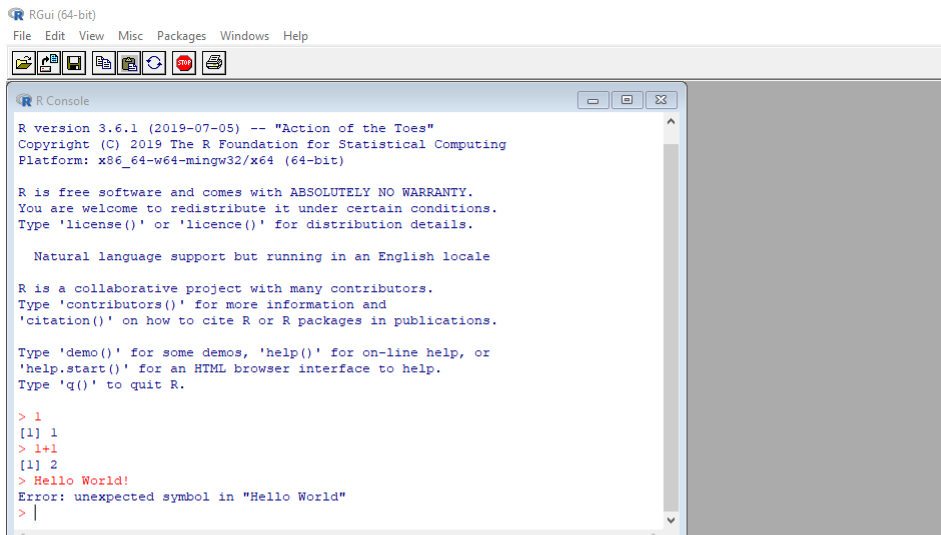
The screenshot shows a web browser window with the address bar containing <https://cran.r-project.org/>, highlighted with a red box and a red circle with the number 1. The page content includes the R logo, navigation links like [CRAN](#), [Mirrors](#), [What's new?](#), [Task Views](#), and [Search](#). On the right, the 'Download and Install R' section is visible, with a red box around the download links and a red circle with the number 2. The download links are:

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

Below the links, it says 'R is part of many Linux distributions, you should check with above.' and 'Source Code for all Platforms'. At the bottom, it starts with 'Windows and Mac users most likely want to download the p'.

# Let's Start!

## Plain R user interface with some text entered



# Let's start

## R-Studio

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**R: Engine**



**RStudio: Dashboard**



# Let's Start RStudio

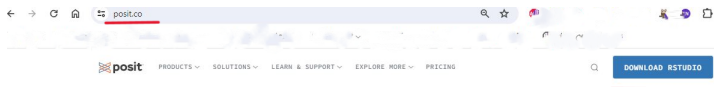
You can work directly in R, but a graphical interface is more convenient. One of the most popular/useful is RStudio, an integrated development environment (IDE)

- a console
- a powerful code/script editor featuring
- special tools for plotting, viewing R objects and code history
- cheatsheets for R programming
- tab-completion for object names and function arguments

# Let's Start!

## Installation of R-studio

- Step 1: Go to the link- <https://posit.co/>
- Step 2: Download and install Rstudio on your system



## Put data into production with Posit Connect

Deploy all the work you create in R & Python with Posit Connect, including Shiny, Streamlit, Bokeh, and Dash applications, Quarto documents, Jupyter Notebooks, Models, Reports, Dashboards. Even APIs. With customizable access controls and authentication options that make IT happy.



# Let's Start!

## R-studio Overview

The screenshot displays the RStudio environment with the following components:

- Source Editor:** Contains R code for data processing and visualization. The code includes:
  - Reading data from 'slides.Rmd'.
  - Creating a patchwork object with three histograms and density plots for variables 'b8', 'e1', and 'e2'.
  - Plotting the patchwork object with a title and subtitle.
  - Returning a date object 'as.Date(returnrpsdate, format = "ln/ld/yyyy")'.
- Environment:** Lists objects in the workspace, including 'b8', 'e1', 'e2', 'faketucky', 'patchwork', 'prices', 'prices2', 'returnf', 'returnrpf', 'returnrpf1', 'returnr1', 'rf', and 'rf2'.
- Files:** Shows the current project files.
- Console:** Displays the execution output, including a warning message and a list of removed rows containing non-finite values.
- Viewer:** Displays a grid of histograms and density plots for various ESG and Market Indices: WI, WES6, ACW, ACWES6, SPES6, SPES6, NASDAQ, and RF.



## Help

- `help("apply")` # get help for the function
- `?apply` # The same. saves typing effort.
- # Press F1 while the cursor is at a command.
- `?read.table`
- `help.search("data input")` # search by specific subject
- `find("package name")` # Tells about the package
- `help.start()` # html help Manuals, Material, search engine

# Getting Help-Outside R

- [R-Manuals](#) for introduction to the language
- Ref Cards: [base](#) and [advanced](#) cheatsheets from [Rstudio](#)
- [StackOverflow](#) for programming questions ← **main resource**

- Grolemund & Wickham (2017) R for Data Science
- [Using R for Introductory Econometrics](#) by Florian Heiss
- [R Tutorials](#)
- [Need Motivation!Click HERE](#)

# At YOUR Home!

- Basic Statistics
- Correlation, Frequency Table
- T-test
- Regression
- Graphs

```
1
2
3
4
5 plot(1, 1, pch = "♥", cex = 20, xlab = "", ylab = "",
6      col = "firebrick3")
```



Thanks  
for your attention!<sup>1</sup>

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<sup>1</sup>Some of the materials has been taken from the course by Ozan Jaquette