

Program R

Definition of R language

R language is a free and open-source statistical computing software. R is widely used by statistical researchers for statistical analysis, data interpretation, calculations, and graphs.

It is available on the Internet from sources, e-books, and ready-made programs, and R also contains a set of open source packages developed by research.

The first release of the R language was in the 1990s, specifically in 1993. This language was influenced by researchers Ross Ihaka and Robert Gentleman from the University of Auckland in New Zealand. They named it R because it symbolizes the first letter of their names.

The R language has quickly attracted the attention of scientists worldwide who were in need of statistical software. R is related to several programming languages, such as S, which was developed in 1980 and is widely used in statistical circles.

R is a language and development environment, and in the last ten years R has entered most companies and technology sectors, including major companies (Google, Microsoft, Facebook) to analyze personal data.

Features of the R Program

1. The R language is characterized by its simplicity. It does not require writing an entry function, as is the case with classical programming languages; the first command is the first line.
2. It is available on a free and open-source website for installation.
3. It is a statistical language that solves all statistical problems in an easy way, for example, using the sum command to calculate the total, the var command to calculate the variance, the mean command to calculate the mean, and so on.
4. It contains advanced statistical procedures not available in other packages.
5. It has powerful graphical capabilities for 3D graphs.
6. The R language is case-sensitive.

7. It contains numerous statistical packages and applications for management, finance, economics, science, and technology, etc., which has attracted many researchers.

8. It provides the results you need in a simplified manner without cluttering the outputs, unlike other statistical software such as SPSS.

❖ Installing the R language

R and RStudio are two different programs that work together. R is the programming language, and RStudio is a front-end program that allows you to write R code, view graphs, and more. First, download R, followed by RStudio.

To install R and RStudio for Windows, follow these steps :

1- To download R, go to the link (cran.r-project.org)



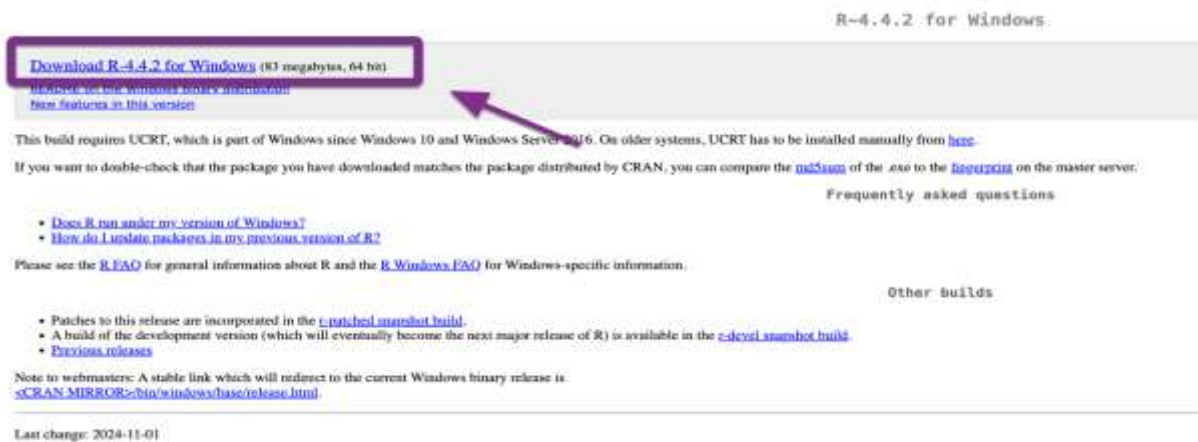
2. Select R download for Windows.



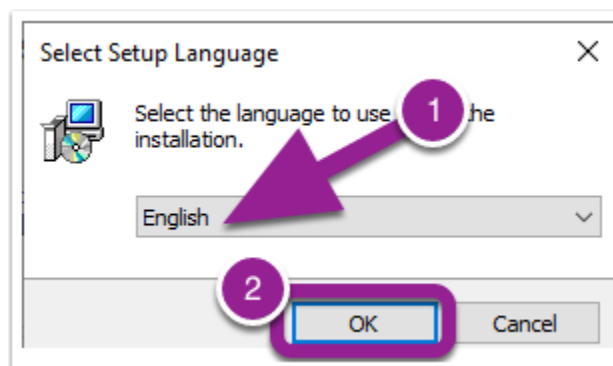
3. To install R, click Install R for the first time.



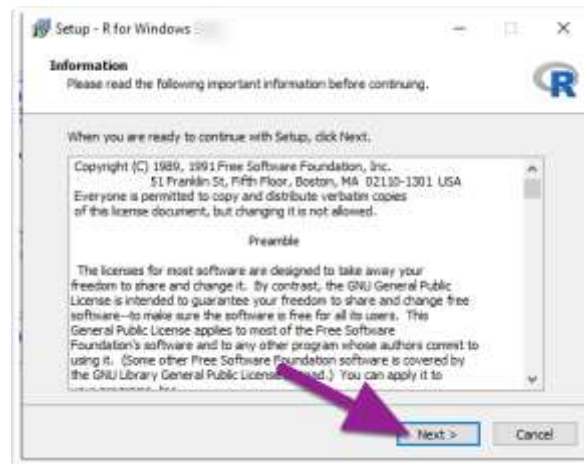
4. Click Download R for Windows. Open the downloaded file.



5. Select the language you want to use during installation, then click OK.



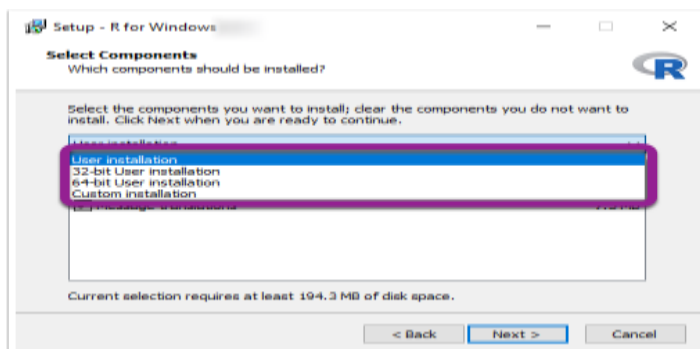
6. Click Next.



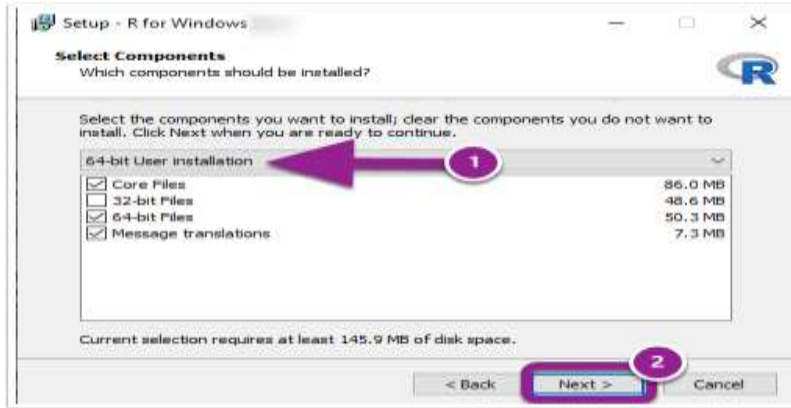
7. Select where to install R. By default, it will be installed in Program Files on the C drive. Click Next.



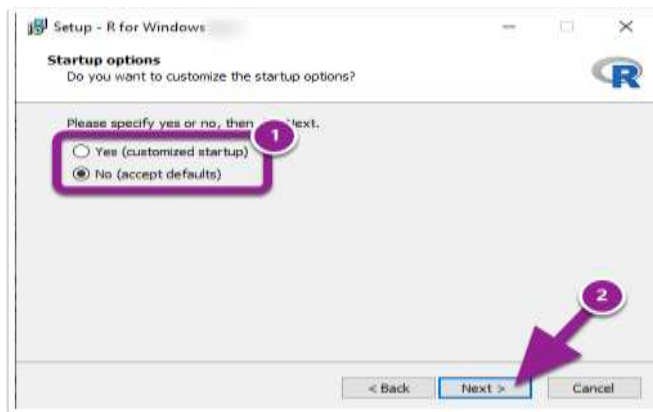
8. You can then choose the installation you want.



9. (Optional) If your computer is 64-bit, you can choose 64-bit user installation. Then click Next.

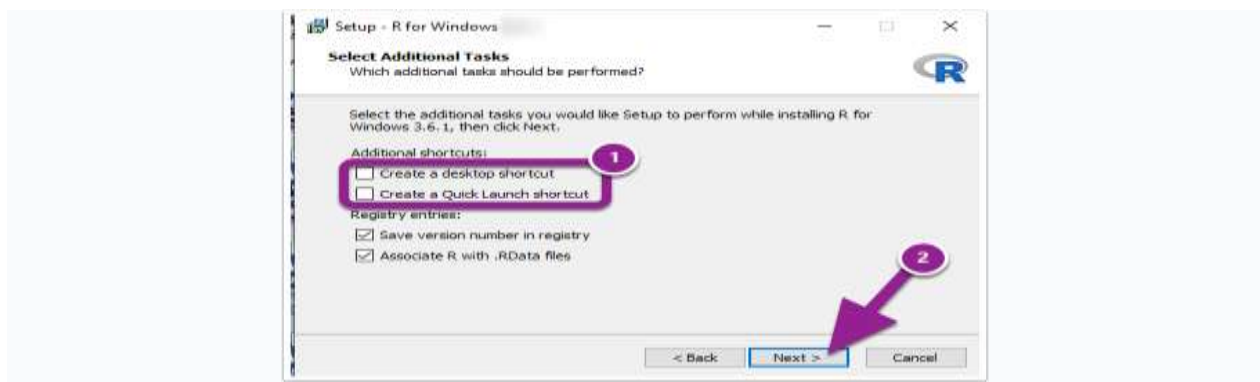


10. Then select whether you want to customize startup or use only the default settings. Then click Next.



11. Next, you can choose the folder where you want to save R, or the default folder if R is created. Once you're done, click Next.

12. You can then specify additional shortcuts if you like. Click Next.



Click Finish.13



14. بعد ذلك، نزل RStudio. انتقل إلى <https://posit.co/downloads/>

14. Next, download RStudio. Go to <https://posit.co/downloads/>

