COMP 2031/8031

Installing R

Overview

- R is a programming language and software environment for statistical analysis, graphics representation and reporting.

- The core of R is an interpreted computer language which allows branching and looping as well as modular programming using functions. R allows integration with the procedures written in the C, C++, .Net, Python or FORTRAN languages for efficiency.

- Free!

Features of R

- R is a well-developed, simple and effective programming language which includes conditionals, loops, user defined recursive functions and input and output facilities.

- R has an effective data handling and storage facility,

- R provides a suite of operators for calculations on arrays, lists, vectors and matrices.

- R provides a large, coherent and integrated collection of tools for data analysis.

- R provides graphical facilities for data analysis and display either directly at the computer or printing at the papers.

R - Environment Setup

- Windows Installation

- You can download the Windows installer version of R from [R-3.2.2 for Windows (32/64 bit)](#) and save it in a local directory.

- As it is a Windows installer (.exe) with a name "R-version-win.exe". You can just double click and run the installer accepting the default settings. If your Windows is 32-bit version, it installs the 32-bit version. But if your windows is 64-bit, then it installs both the 32-bit and 64-bit versions.

- After installation you can locate the icon to run the Program in a directory structure "R\R3.2.2\bin\i386\Rgui.exe" under the Windows Program Files. Clicking this icon brings up the R-GUI which is the R console to do R Programming.

- Linux Installation
- R is available as a binary for many versions of Linux at the location [R Binaries](#).
- The instruction to install Linux varies from flavor to flavor. These steps are mentioned under each type of Linux version in the mentioned link. However, if you are in a hurry, then you can use **yum** command to install R as follows –
- $ yum install R

Preferred Installation

- https://www.rstudio.com/products/rstudio/download/
- **RStudio** is an Integrated Development Environment (IDE) for R, a programming language for statistical computing and graphics.

R Script File

- Usually, you will do your programming by writing your programs in script files and then you execute those scripts at your command prompt with the help of R interpreter called **Rscript**.

myString <- "Hello, World!"

print (myString)

- Two possible ways for assignment operation "<-" AND "=".

- I strongly recommend to use "="