

Software specifications

Chapter number	Software required (With version)	Free/Proprietary	If proprietary, can code testing be performed using a trial version	If proprietary, then cost of the software	Download links to the software	Hardware specifications	OS required
1	R version 3.3.0	Free	-	-	https://cran.r-project.org/	32-bit and 64-bit architectures (both are supported)	Windows, Mac OS X, and Linux (Any)
2	Rstudio Desktop 0.99.903	Free	-	-	https://www.rstudio.com/	32-bit and 64-bit architectures (both are supported)	Windows, Mac OS X, and Linux (Any)

Detailed installation steps (software-wise)

The steps should be listed in a way that it prepares the system environment to be able to test the codes of the book.

1. Installation of R:
 - a. Downloading R in Windows:
 - Go to URL <http://cran.r-project.org/bin/windows/base/>
 - Click on the link Download R 3.3.1 for Windows at the top of the page

- Run the downloaded executable and follow the installation instructions
 - Pick a working directory for R
 - Once the program has installed, you can start the R from Rgui.exe (Shortcut on desktop)
- b. Downloading R on Mac OSX
- Go to URL <http://cran.r-project.org/bin/macosx/>
 - Click on the link Download R 3.3.1 (pkg) file from the page
 - Open the downloaded file and follow the installation instructions
 - After installation R.app from Applications folder can be used to initiate R
- c. Downloading R on Linux:
- For Linux operating system installation instruction depends on type of Linux.
 - Go to URL <http://cran.r-project.org/bin/linux/>
 - Pick the distribution folder depending on Linux version.
 - The installation steps can be followed based on the Linux version selection. Below is installation instruction for Ubuntu

```
$ sudo apt-get update
$ sudo apt-get install r-base
```

For compilation of R from source

```
$ sudo apt-get install r-base-dev
```

Package in R can be installed using *install.packages("Package-name")*

2. Installation of RStudio: Pre-requisite for RStudio: Any version of R>2.11.1

- a. Downloading Rstudio version from <https://www.rstudio.com/products/rstudio/download3/> depending on the operating system
- b. For windows click on the .exe file and follow installation instruction
- c. For Mac click on .dmg file and follow installation instruction
- d. For Ubuntu (Linux version) open the downloaded file in Ubuntu Software Center and follow installation instruction