
Chapter 1

R



시작하기



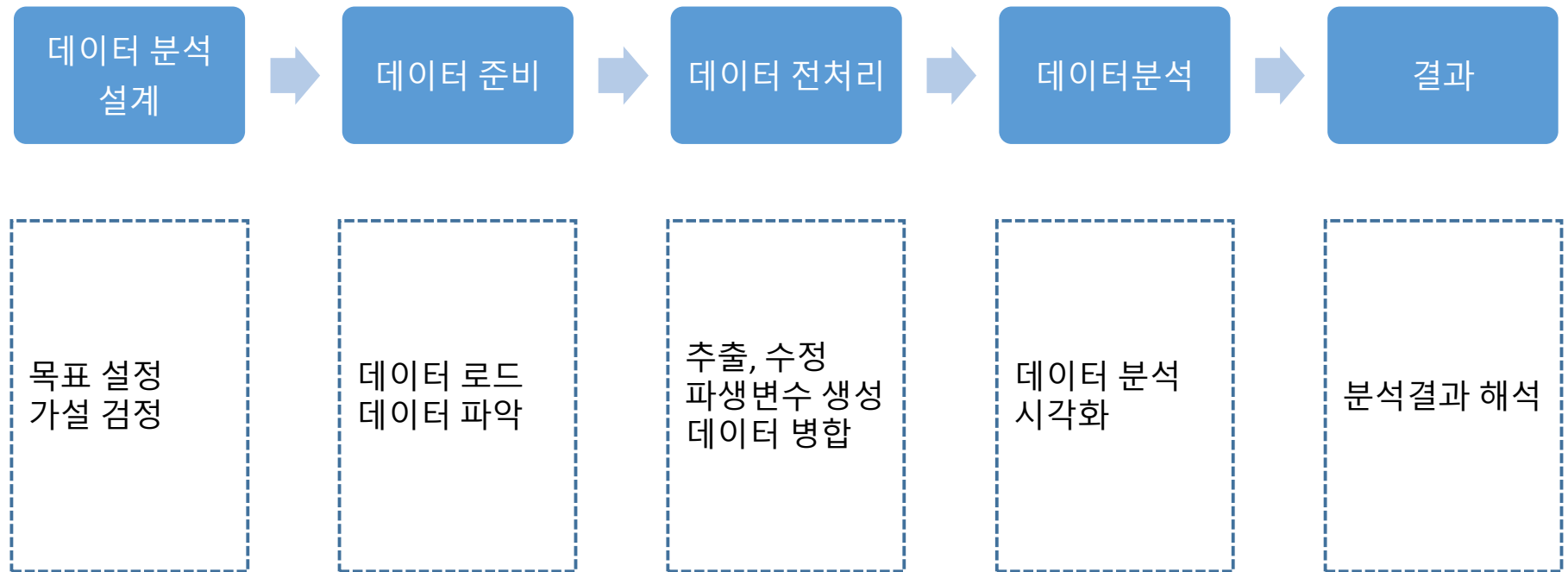
장점

- 진입 장벽이 낮은 언어
- 오픈 소스 기반으로 무료로 사용이 가능
- 방대한 양의 package를 제공
- 데이터 분석 소프트웨어 1위

단점

- 분석 특화 언어로 IT서비스에 접목이 어려움
- error에 대한 내용을 스스로 해결해야 하는 문제

데이터 분석의 흐름

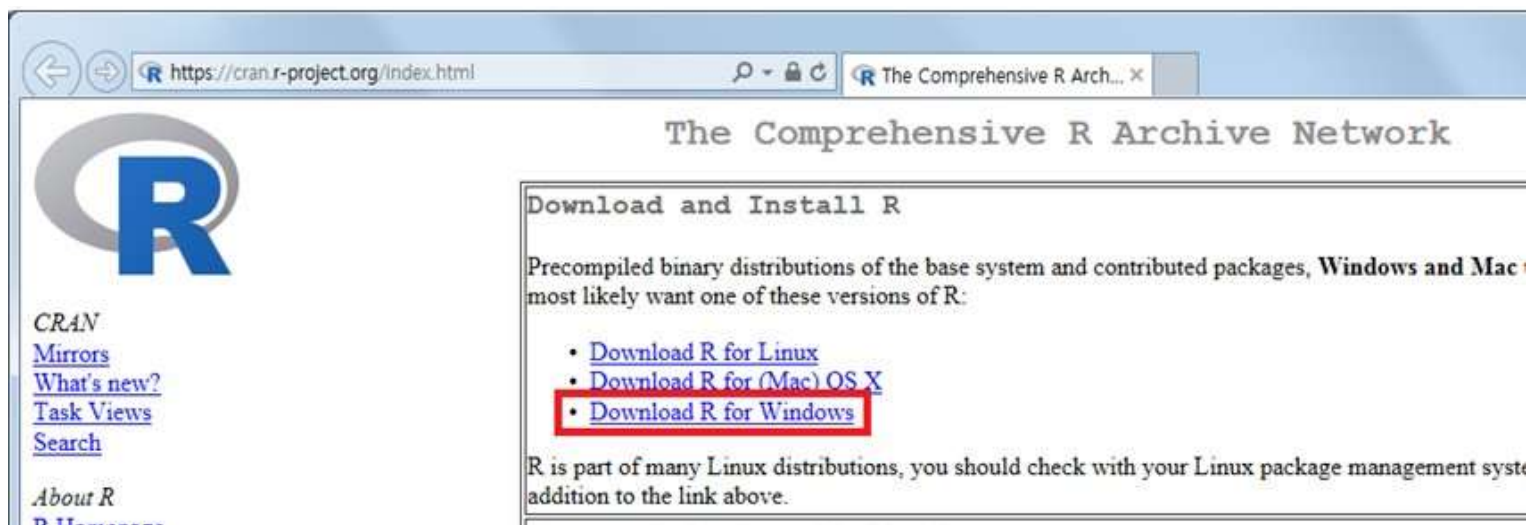


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R다운로드

<http://cran.rstudio.com/>

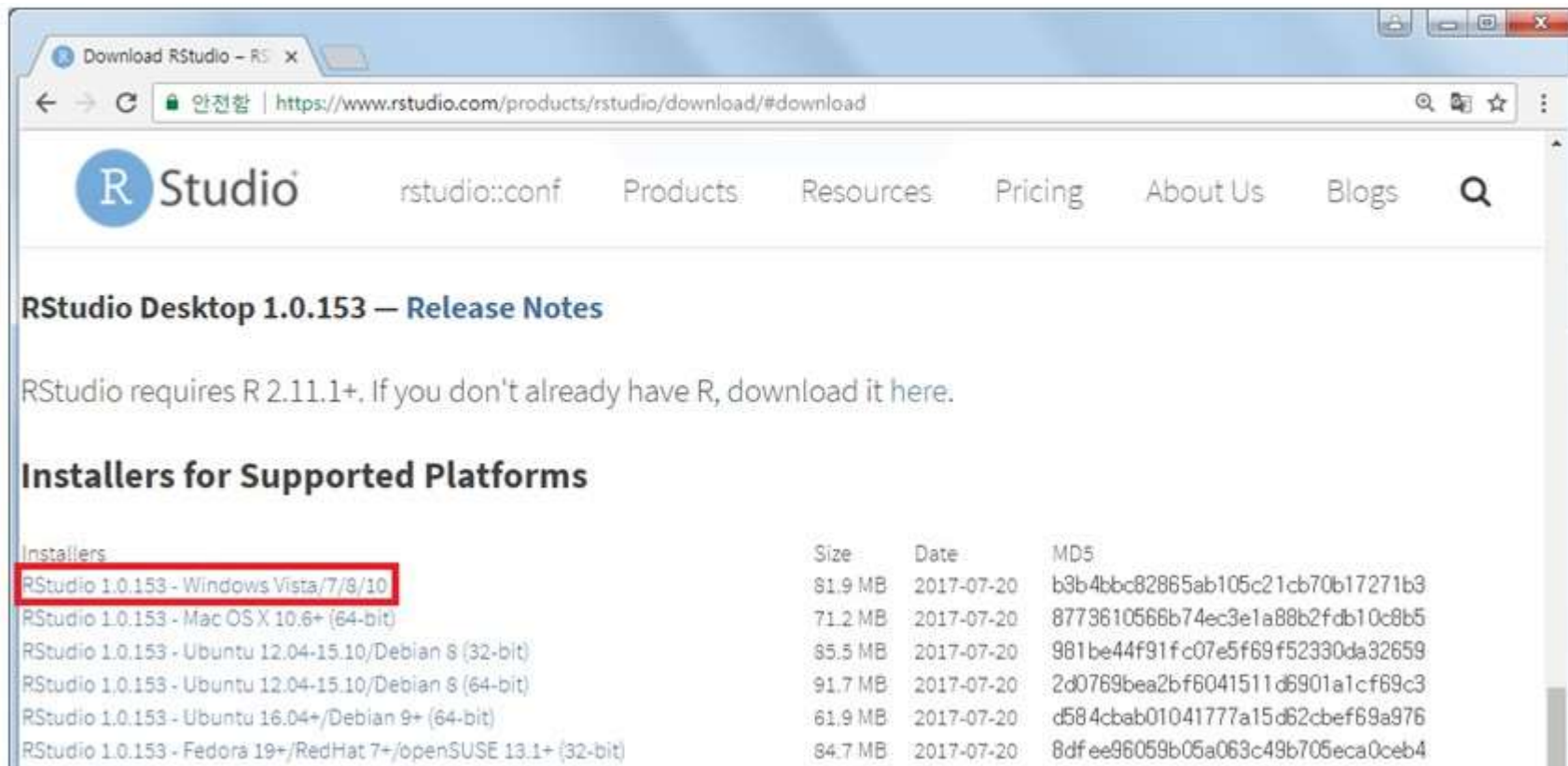


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R스튜디오 다운로드

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

A screenshot of a web browser displaying the RStudio download page. The browser's address bar shows the URL 'https://www.rstudio.com/products/rstudio/download/#download'. The page header includes the RStudio logo and navigation links: 'rstudio::conf', 'Products', 'Resources', 'Pricing', 'About Us', and 'Blogs'. The main content area is titled 'RStudio Desktop 1.0.153 — Release Notes' and contains the text 'RStudio requires R 2.11.1+. If you don't already have R, download it here.' Below this is a section titled 'Installers for Supported Platforms' which contains a table of download links, sizes, dates, and MD5 hashes. The first row of the table, 'RStudio 1.0.153 - Windows Vista/7/8/10', is highlighted with a red rectangular box.

Download RStudio - RStudio

← → ↻ 🔒 안전함 | <https://www.rstudio.com/products/rstudio/download/#download>

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RStudio Desktop 1.0.153 — Release Notes

RStudio requires R 2.11.1+. If you don't already have R, download it [here](#).

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.0.153 - Windows Vista/7/8/10	81.9 MB	2017-07-20	b3b4bbc82865ab105c21cb70b17271b3
RStudio 1.0.153 - Mac OS X 10.6+ (64-bit)	71.2 MB	2017-07-20	8773610566b74ec3e1a88b2fdb10c8b5
RStudio 1.0.153 - Ubuntu 12.04-15.10/Debian 8 (32-bit)	85.5 MB	2017-07-20	981be44f91fc07e5f69f52330da32659
RStudio 1.0.153 - Ubuntu 12.04-15.10/Debian 8 (64-bit)	91.7 MB	2017-07-20	2d0769bea2bf6041511d6901a1cf69c3
RStudio 1.0.153 - Ubuntu 16.04+/Debian 9+ (64-bit)	61.9 MB	2017-07-20	d584cbab01041777a15d62cbef69a976
RStudio 1.0.153 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	84.7 MB	2017-07-20	8df ee96059b05a063c49b705eca0ceb4

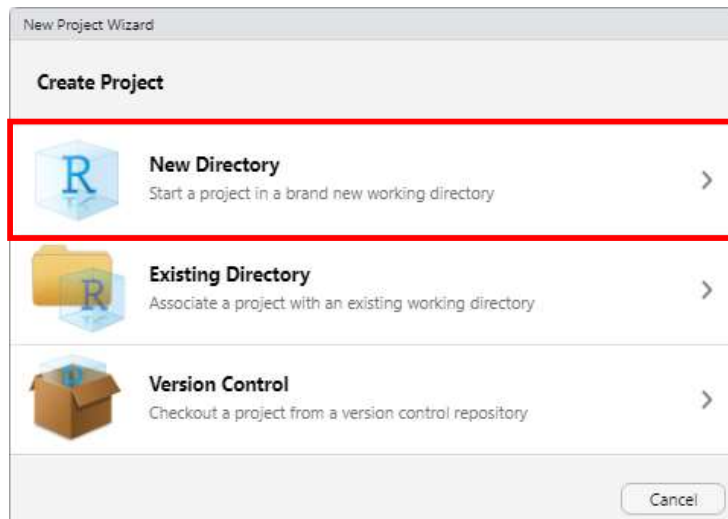
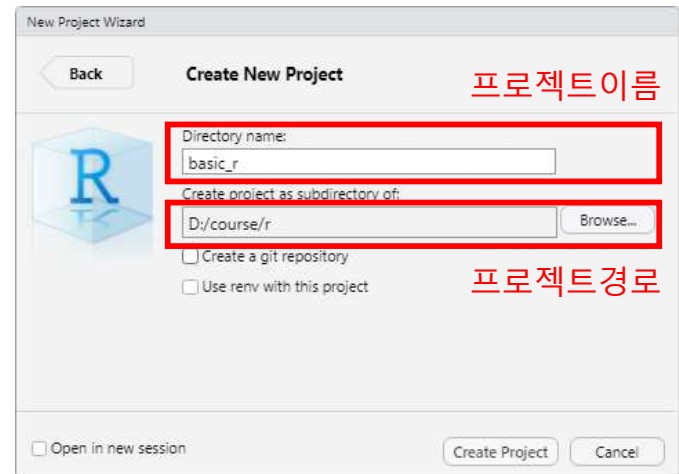
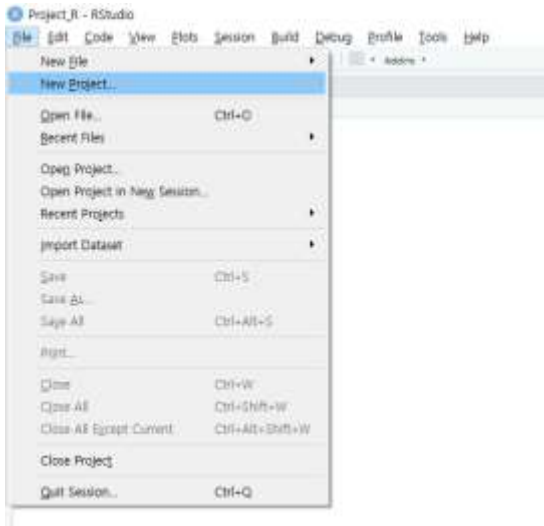
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The image shows the RStudio interface with four panels highlighted by red boxes, each labeled with a red text overlay:

- Source:** The top-left panel showing R code for reading CSV files. The code includes comments in Korean and R functions like `read.csv()` and `colSums()`.
- Environment:** The top-right panel showing the current environment with a variable named `income` containing 4 observations of 2 variables.
- Console:** The bottom-left panel showing the output of the R code executed in the source editor. It displays the structure of the `income` data frame and the results of `colSums()` and `view()` functions.
- Help:** The bottom-right panel showing the R documentation for the `read.table()` function, including its description and usage.

시작하기

프로젝트 생성

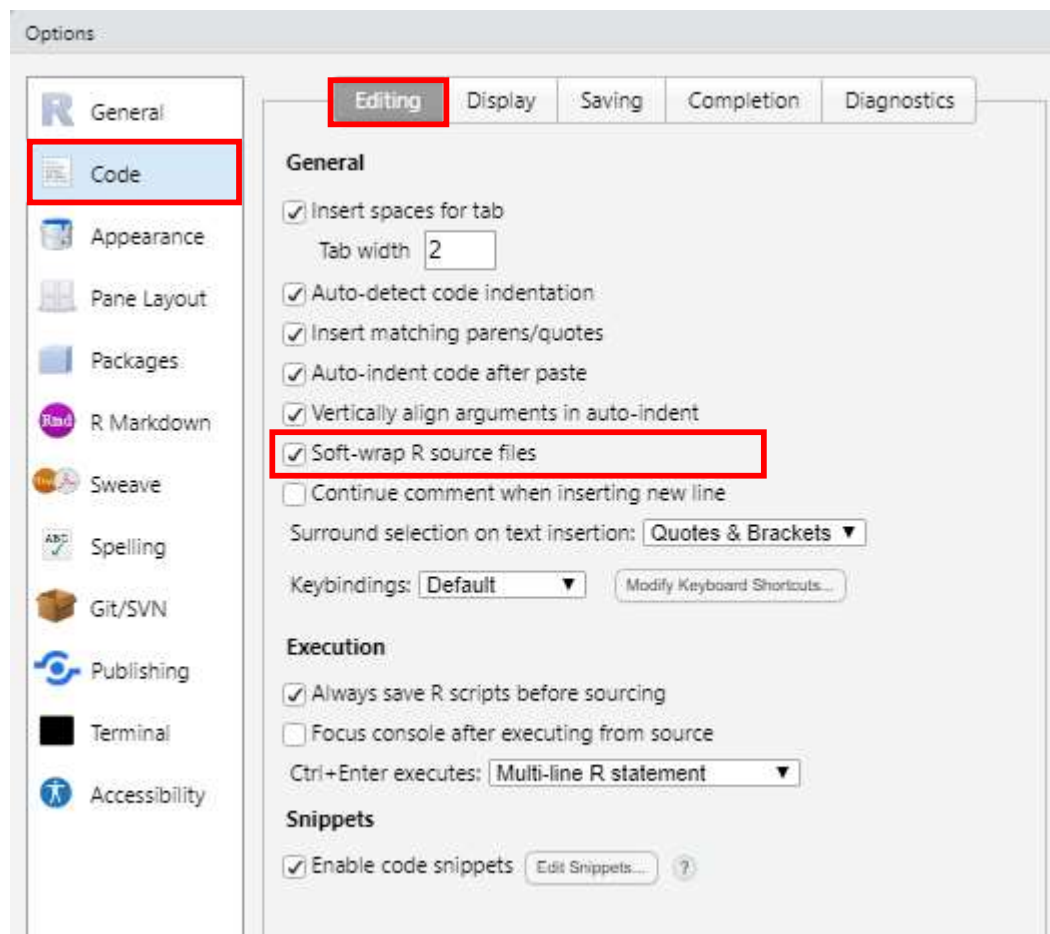


New Directory – 새로운 프로젝트 생성
Existing Directory – 기존 프로젝트를 열 때
Version Control – 깃허브등을 이용할 때

시작하기

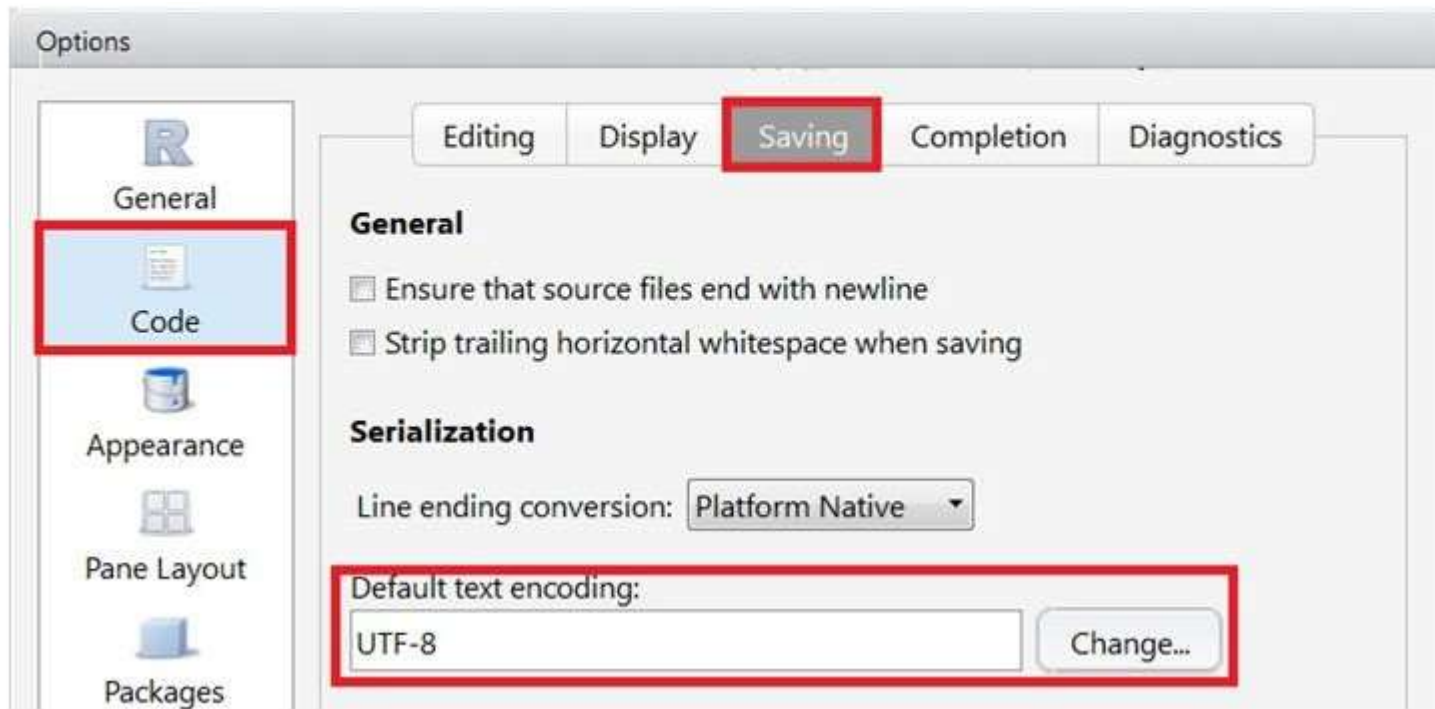
자동줄바꿈

tools ->
global options



시작하기

인코딩설정



Untitled1*

Source on Save

Run

Source

```
1 x = 1
```

1:6 (Top Level)

R Script

Console

~/

```
> 1
[1] 1
> 2
[1] 2
> d
에러: 객체 'd'를 찾을 수 없습니다
> 1
[1] 1
> 1
[1] 1
> x = 1
> x += 1
에러: 예기치 않은 '='입니다 in "x += "
>
```

Environment History Connections Tutorial

Import Dataset

Global Environment

Values

x	1
---	---

*변수와 값을 저장

Files Plots Packages Help Viewer

Install Update

Name	Description	Version
System Library		
<input checked="" type="checkbox"/> base	The R Base Package	4.0.3
<input type="checkbox"/> boot	Bootstrap Functions (Originally by Angelo Canty for S)	1.3-25
<input type="checkbox"/> class	Functions for Classification	7.3-17
<input type="checkbox"/> cluster	"Finding Groups in Data": Cluster Analysis Extended	2.1.0
<input type="checkbox"/> codetools	Code Analysis Tools for R	0.2-16
<input type="checkbox"/> compiler	The R Compiler Package	4.0.3
<input checked="" type="checkbox"/> datasets	The R Datasets Package	4.0.3
<input type="checkbox"/> foreign	Read Data Stored by 'Minitab', 'S', 'SAS', 'SPSS', 'Stata', 'Systat', 'Weka', 'dBase', ...	0.8-80
<input checked="" type="checkbox"/> graphics	The R Graphics Package	4.0.3
<input checked="" type="checkbox"/> grDevices	The R Graphics Devices and Support for Colours and Fonts	4.0.3
<input type="checkbox"/> grid	The Grid Graphics Package	4.0.3
<input type="checkbox"/> KernSmooth	Functions for Kernel Smoothing Supporting Wand & Jones (1995)	2.23-17
<input type="checkbox"/> lattice	Trellis Graphics for R	0.20-41



Chapter 1

수고하셨습니다