

강원대학교
AI 소프트웨어학과

머신러닝2

강의목표

- **실제 데이터를 실습하며 방법론에 대한 이해**
- **머신러닝 모델의 활용사례별 실습을 통해 모델을 이해**
- **실제로 데이터가 만들어지고 학습되는 과정을 이해**
- **소규모 프로젝트를 통해 새로운 문제를 해결**

- 성적은 중간고사 : 시험(40%), 기말고사 : 시험(40%), 출석(10%), 과제-팀플(10%)
- 지각 3번은 결석 1번
- 상대평가
- 결석 4번은 F



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Kimchanggyun

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한국어 자연어처리를 위한 파이썬 라이브러리입니다. 단어 추출/ 토큰나이저 / 품사판별/ 전처리의 기능을 제공합니다.

Jupyter Notebook

Public

3 contributions in the last year

Contribution settings

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Customize your pins

New repository

Import repository

New codespace

New gist

New organization

New project

3 contributions in the last year


Contribution settings

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk (*).

Owner *

 Kimchanggyun

 /

Repository name *


R

✔ R is available.

Great repository names are short and memorable. Need inspiration? How about [laughing-garbanzo](#) ?

Description (optional)


- ☒



Public

Anyone on the internet can see this repository. You choose who can commit.

☐





Private

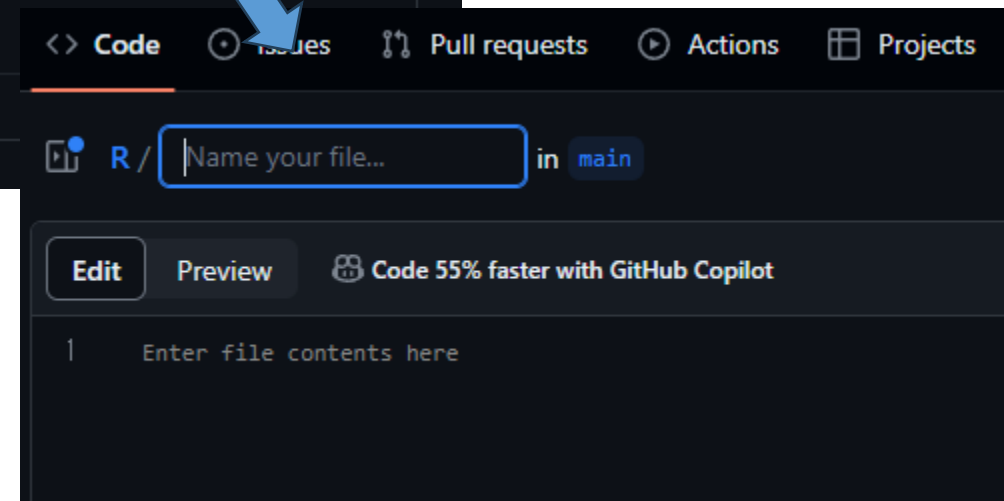
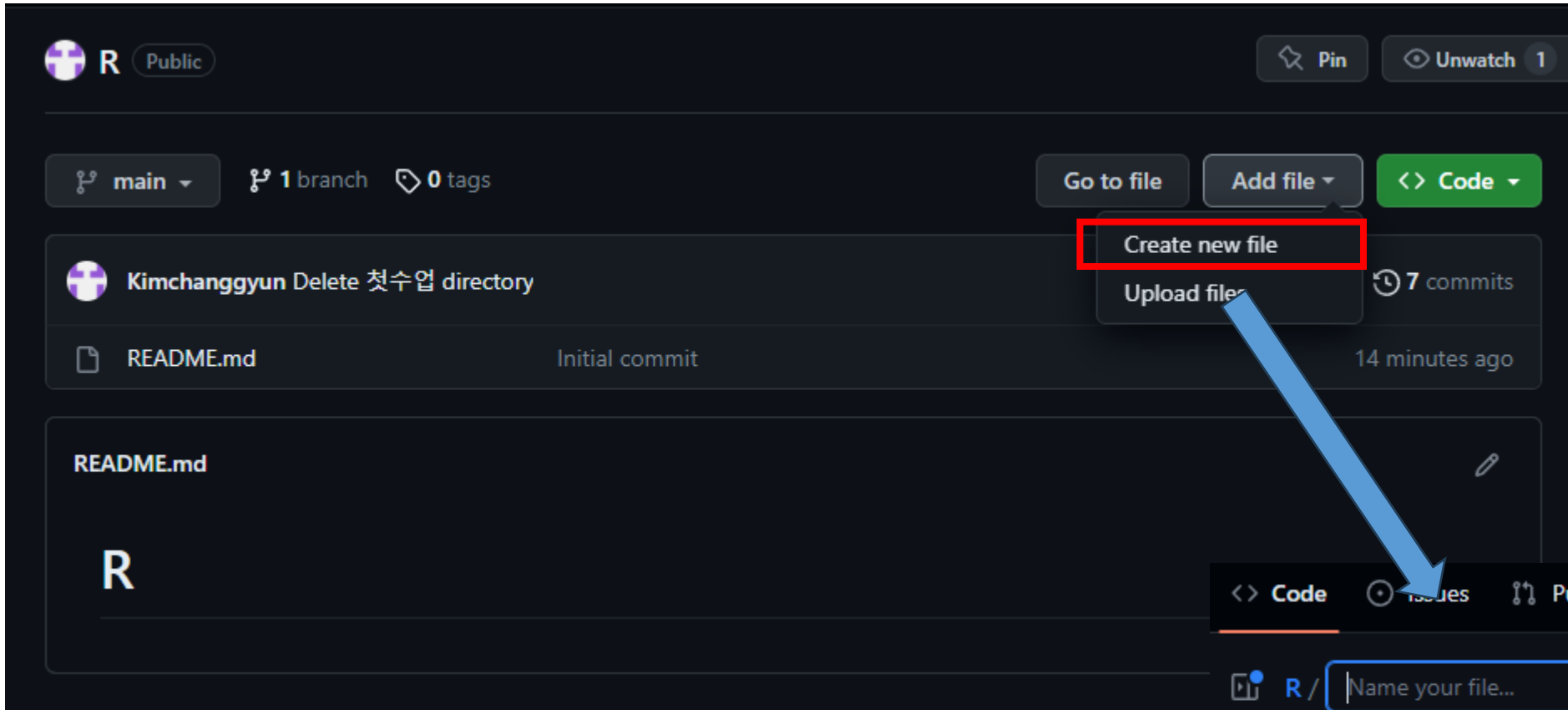
You choose who can see and commit to this repository.
- Initialize this repository with:

☒ Add a README file

This is where you can write a long description for your project. [Learn more about READMEs.](#)
- Add .gitignore

.gitignore template: None
- Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)
- Choose a license

License: None
- A license tells others what they can and can't do with your code. [Learn more about licenses.](#)
- This will set  main as the default branch. Change the default name in your [settings](#).
-  You are creating a public repository in your personal account.
- Create repository



Danger Zone

Change repository visibility
This repository is currently public.

Change visibility

Transfer ownership
Transfer this repository to another user or to an organization where you have the ability to create repositories.

Transfer

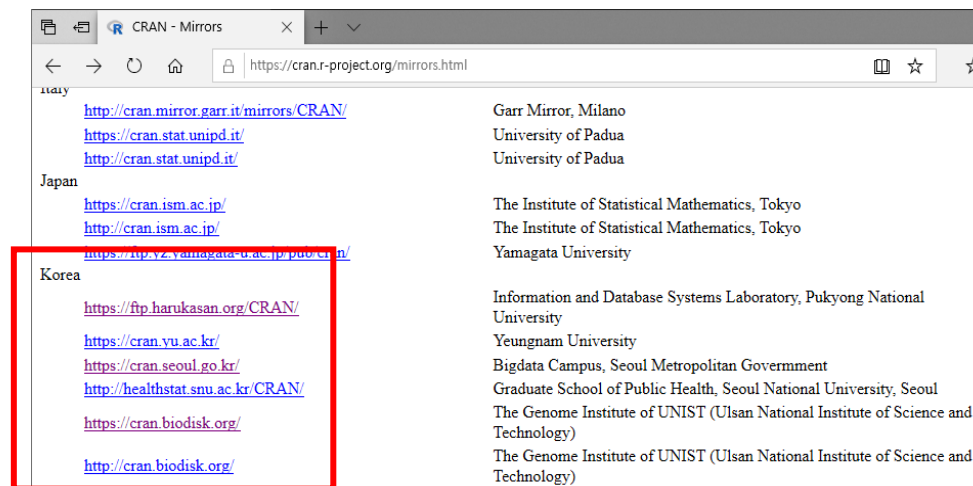
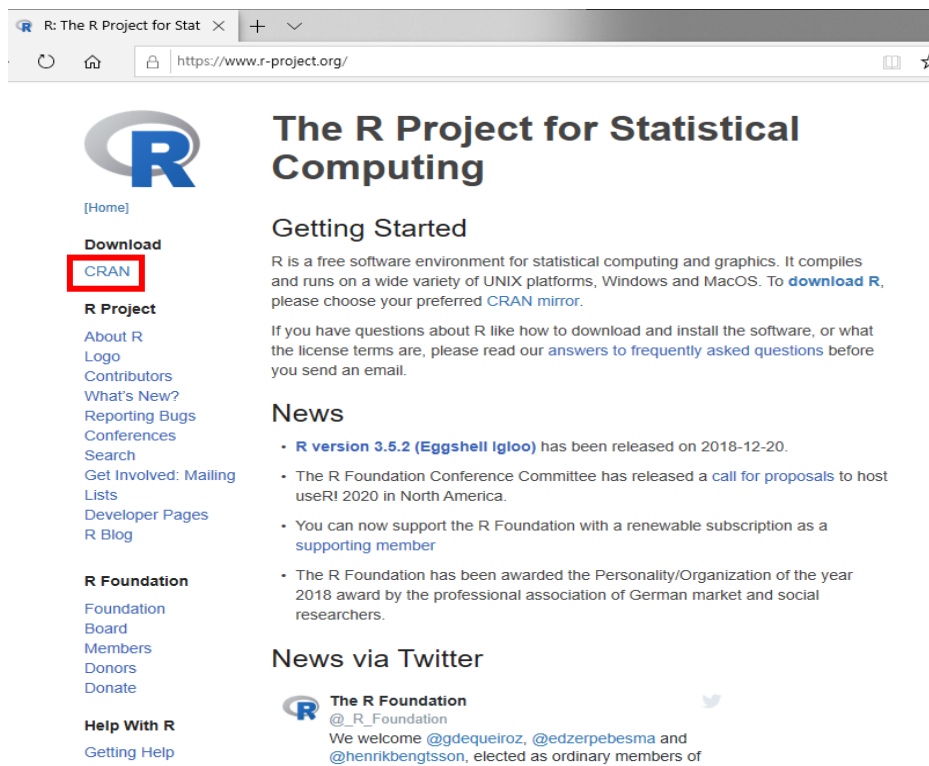
Archive this repository
Mark this repository as archived and read-only.

Archive this repository

Delete this repository
Once you delete a repository, there is no going back. Please be certain.

Delete this repository

R 소개 및 설치

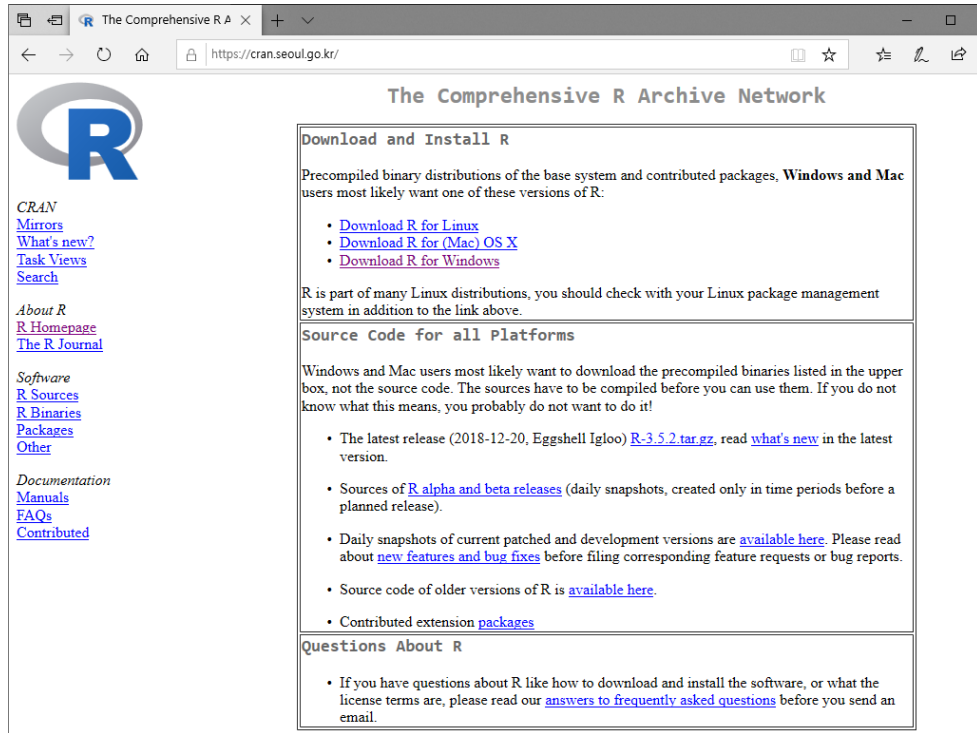


① R 홈페이지 접속 -> <http://www.r-project.org/>

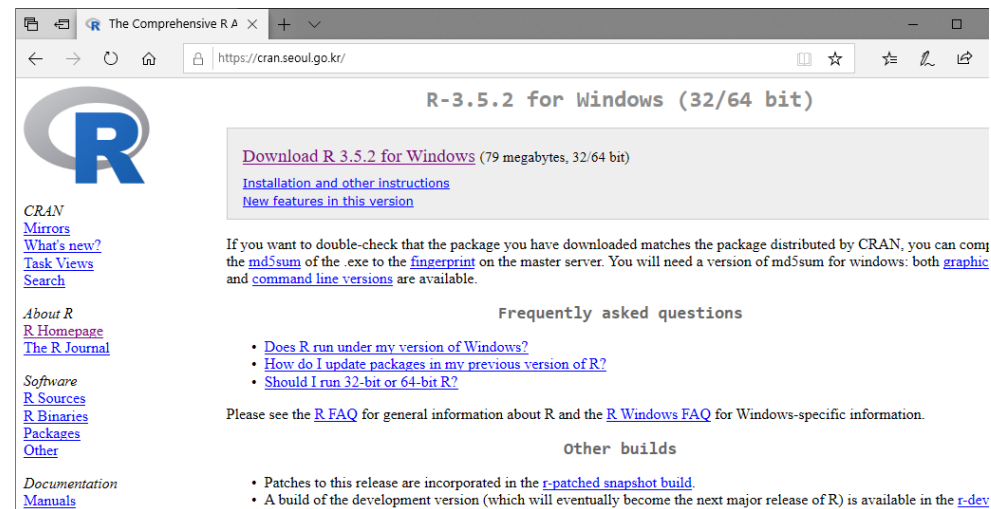
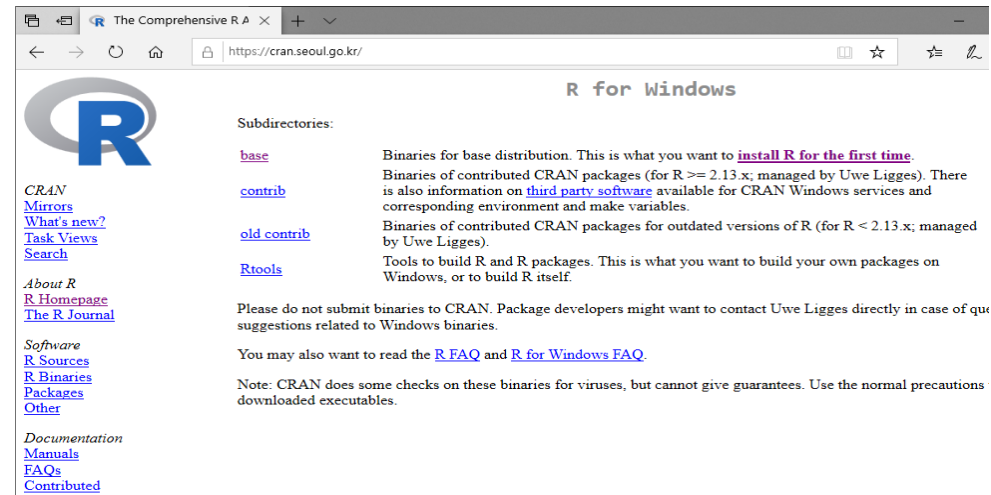
② Download 메뉴의 CRAN 클릭

③ 해당하는 국가(Korea)의 링크 클릭

R 소개 및 설치

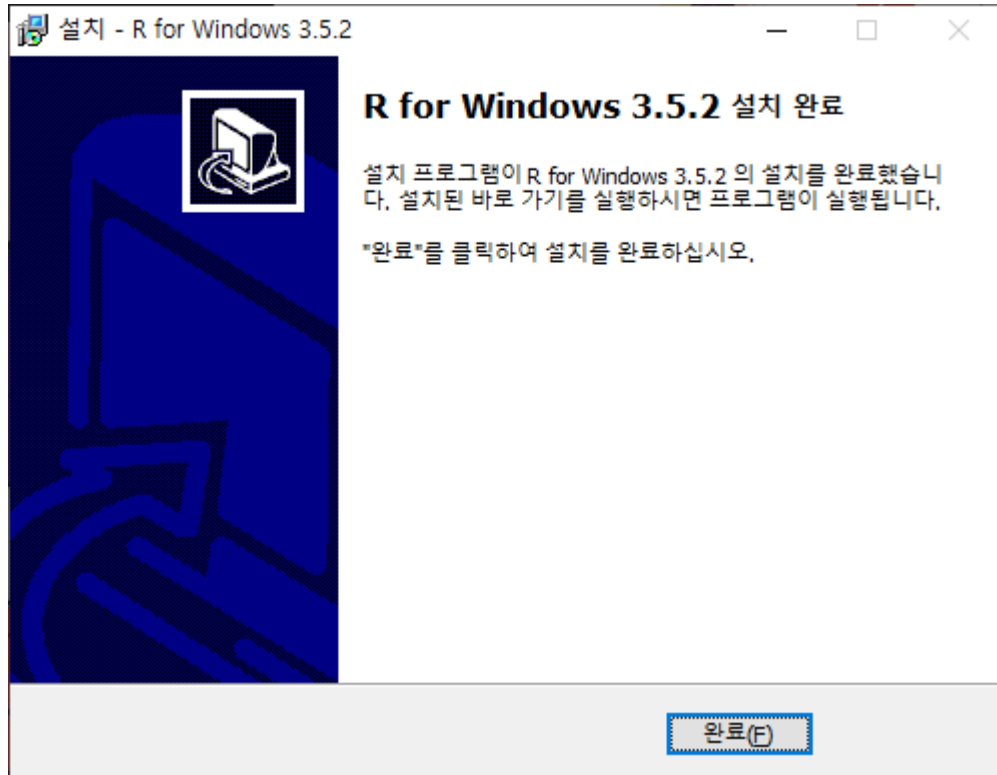


④ Download R for Windows 클릭

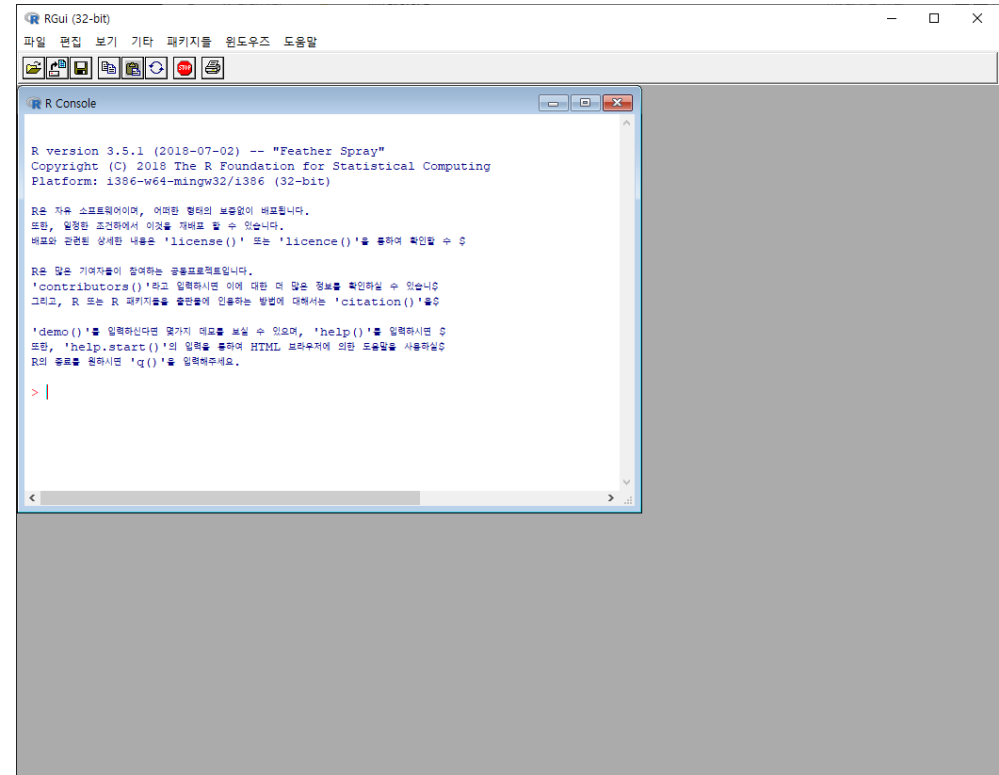


⑤ 'base' 클릭

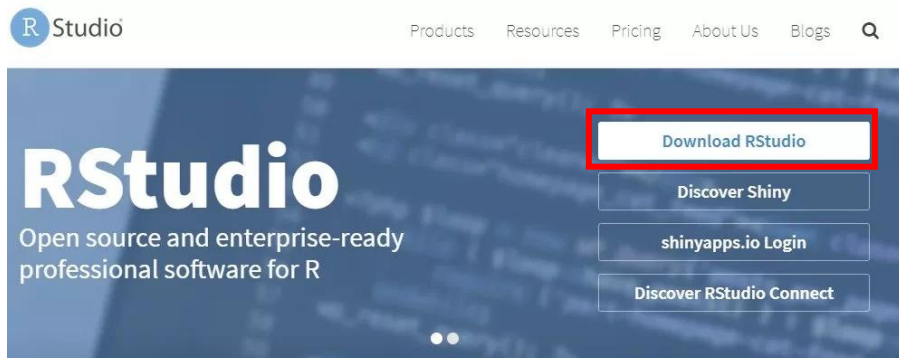
⑥ Download R 3.5.2 for Windows를 클릭



⑦ R 설치완료



⑧ R 실행해보기



RStudio

RStudio makes R easier to use. It includes a code editor, debugging & visualization tools.

[Download](#) [Learn More](#)



Shiny

Shiny helps you make interactive web applications for visualizing data. Bring R data analysis to life.

[Learn More](#)

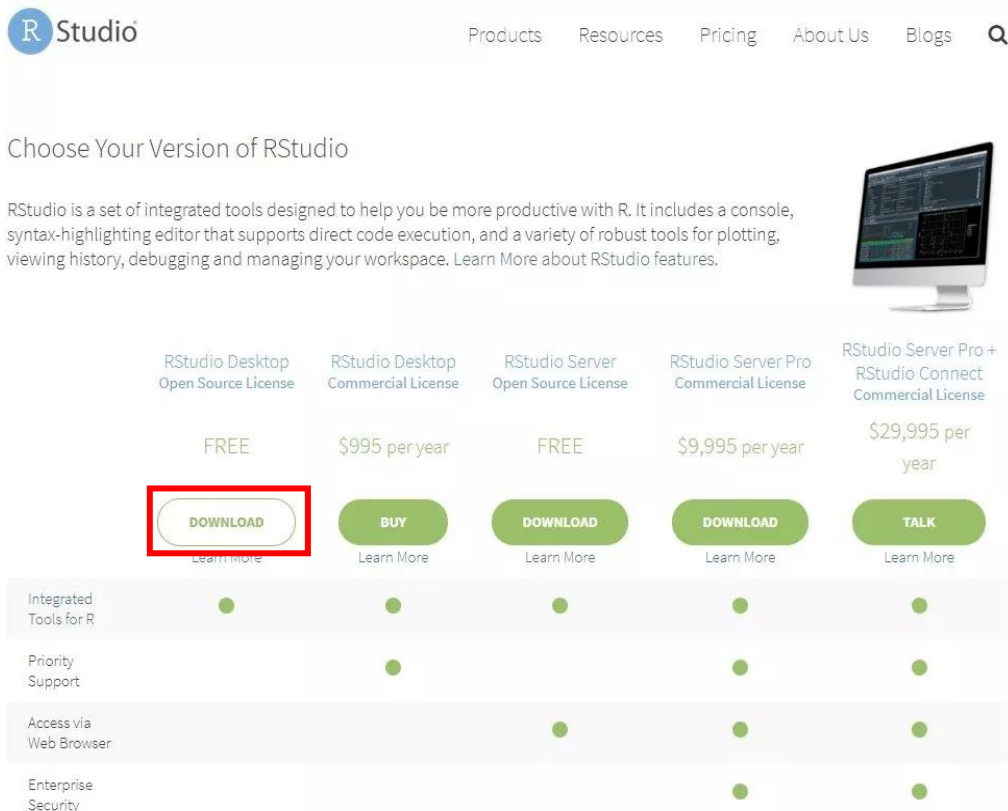


R Packages

Our developers create popular packages to expand the features of R. Includes ggplot2, dplyr, R Markdown & more.

[Learn More](#)

※ R Studio는 R을 설치하지 않으면 실행 되지 않음

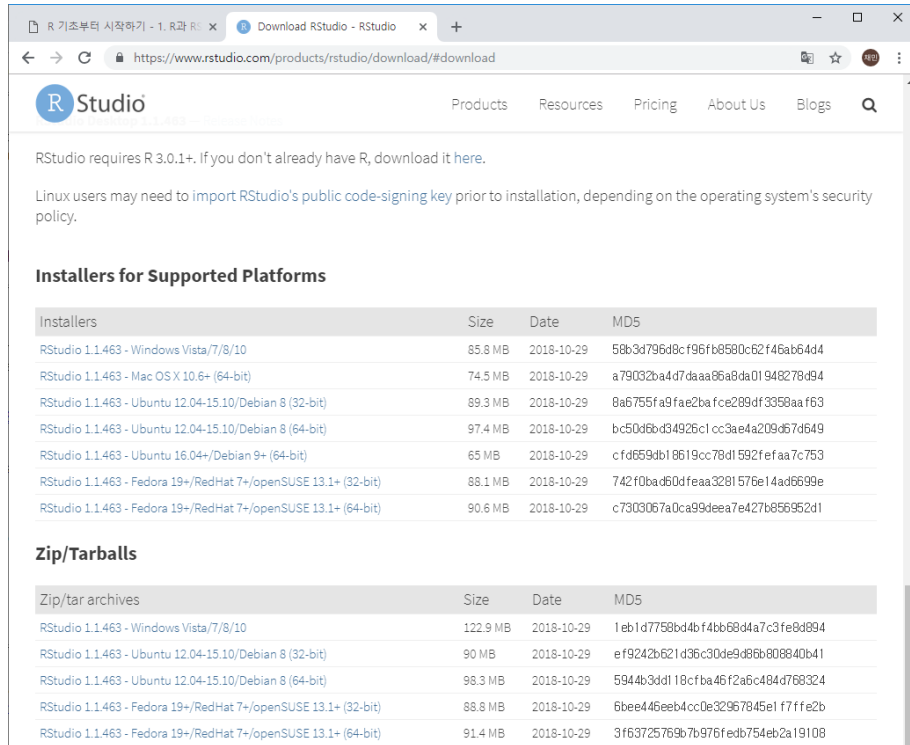


① R Studio 홈페이지 접속 -> <http://www.rstudio.com/>

③ Free 아래의 DOWNLOAD 클릭

② 'Download Rstudio' 클릭

R 소개 및 설치

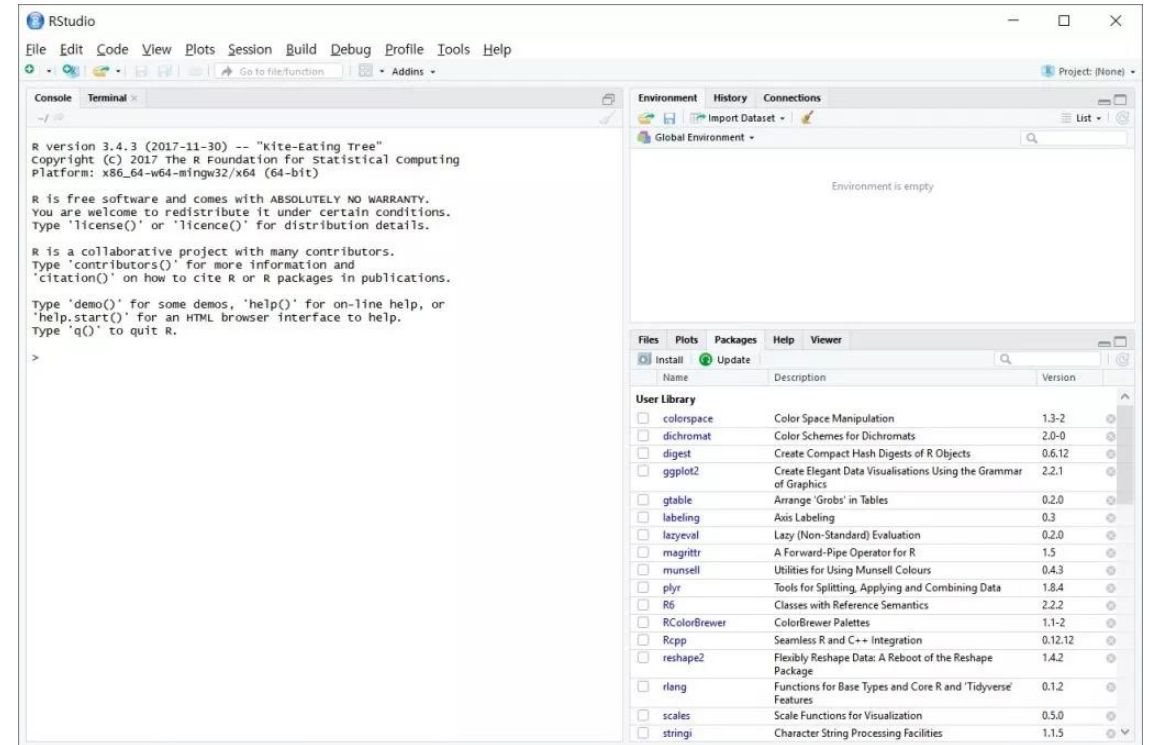


The screenshot shows the RStudio website's download page. It includes navigation links like Products, Resources, Pricing, About Us, and Blogs. A message states: "RStudio requires R 3.0.1+. If you don't already have R, download it here." Below this, a note for Linux users mentions the need to import RStudio's public code-signing key. The main section is titled "Installers for Supported Platforms" and contains a table with download links, sizes, dates, and MD5 hashes for various operating systems. A second table titled "Zip/Tarballs" provides similar information for archive formats.

Installers	Size	Date	MD5
RStudio 1.1.463 - Windows Vista/7/8/10	85.8 MB	2018-10-29	58b3d796d8cf96fb8580c62f46ab6444
RStudio 1.1.463 - Mac OS X 10.6+ (64-bit)	74.5 MB	2018-10-29	a79032ba4d7daa96a8da01948278d94
RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (32-bit)	89.3 MB	2018-10-29	0a6755fa9fae2bafce289df3358aa f63
RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (64-bit)	97.4 MB	2018-10-29	bc50d6bd34926c1cc3ae4a209d57d649
RStudio 1.1.463 - Ubuntu 16.04+/Debian 9+ (64-bit)	65 MB	2018-10-29	cf6559db18619cc78d1592fefaa7c753
RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	88.1 MB	2018-10-29	742f0ba6d0dfeaa3281576e14ad6699e
RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	90.6 MB	2018-10-29	c7303067a0ca99deea7e4276b656952d1

Zip/tar archives	Size	Date	MD5
RStudio 1.1.463 - Windows Vista/7/8/10	122.9 MB	2018-10-29	1eb1d7758bd4bf4bb68d4a7c3fe8d994
RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (32-bit)	90 MB	2018-10-29	ef9242b621d36c30de9d8b808840b41
RStudio 1.1.463 - Ubuntu 12.04-15.10/Debian 8 (64-bit)	98.3 MB	2018-10-29	5944b3dd118cfba46f2a6c484d768324
RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (32-bit)	88.8 MB	2018-10-29	6bee445eeb4cc0e32967845e1f7ffe2b
RStudio 1.1.463 - Fedora 19+/RedHat 7+/openSUSE 13.1+ (64-bit)	91.4 MB	2018-10-29	3163725769b7b976fedb754eb2a19108

④ 맨 위에 있는 Windows 버전 클릭

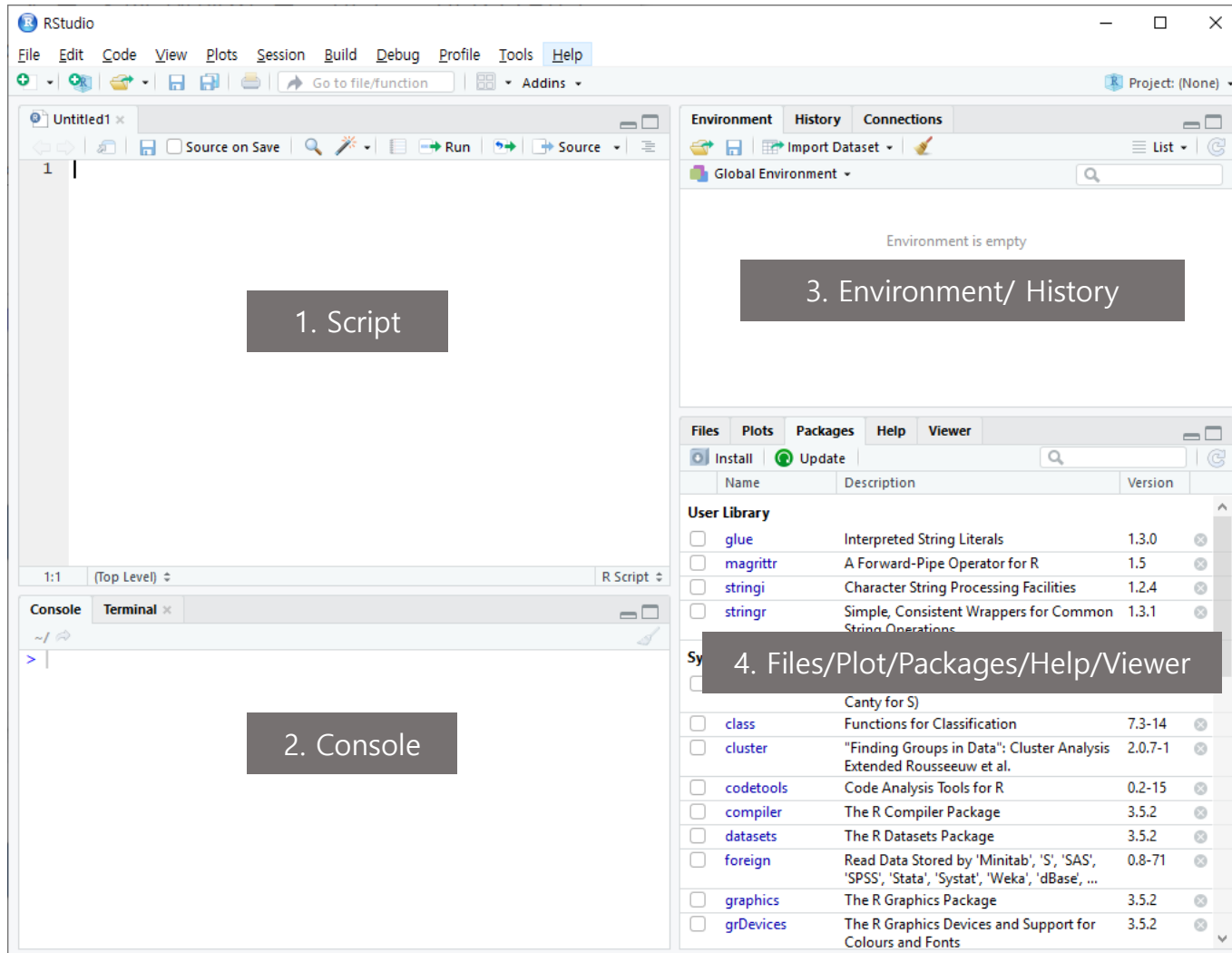


The screenshot shows the RStudio application window. The top menu bar includes File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, and Help. The main console area displays the R version 3.4.3 (2017-11-30) and copyright information. The right-hand pane is divided into three sections: Environment (showing 'Global Environment'), History, and Connections. Below these is a 'User Library' section with a list of installed R packages, including colorspace, dichromat, digest, ggplot2, gtable, labeling, lazyeval, magrittr, munsell, plyr, R6, RColorBrewer, Rcpp, reshape2, rlang, scales, and stringi.

⑤ 계속 다음 버튼 누른 후 설치 완료

⑥ R Studio 실행해보기

R 소개 및 설치



1. Script 창

- Batch 모드로 R Script를 작성하고 실행 가능
- 'Ctrl + R' or 'Ctrl + Enter' 로 실행

2. Console 창

- R Script 창 or Console 창에서 작성한 프로그램의 결과 볼 수 있음
- 패키지 설치, 오류 메시지 볼 수 있음

3. Environment/ History 창

- 데이터 셋의 이름, 관측치 개수, 변수 개수 볼 수 있음

4. Files/Plot/Packages/Help/Viewer 창

- 패키지, 디렉토리 및 파일 관리
- 이미지 뷰어

패키지 설치하고 로드하기

- R은 오픈소스로 수천개가 넘는 패키지를 가지고 있음
- `install.packages("패키지명")`을 쳐서 설치한 후 `library(패키지명)`으로 실행시켜주면 패키지 내의 함수를 사용할 수 있음
- `help(packages=)`를 통해 패키지를 검색할 수 있음

```
> install.packages("stringr")
Installing package into 'C:/Users/chaemin/Documents/R/win-library/3.5'
(as 'lib' is unspecified)
trying URL 'https://cran.rstudio.com/bin/windows/contrib/3.5/stringr_1.4.0.zip'
Content type 'application/zip' length 214115 bytes (209 KB)
downloaded 209 KB
```

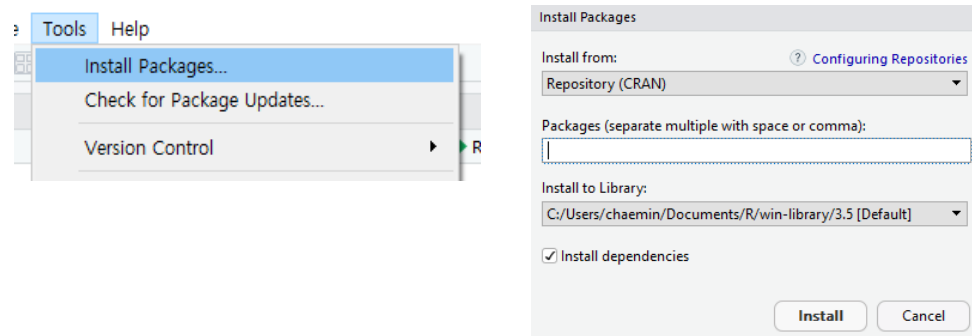
```
package 'stringr' successfully unpacked and MD5 sums checked
```

```
The downloaded binary packages are in
  C:\Users\chaemin\AppData\Local\Temp\RtmpUTYf6N\downloaded_packages
> library(stringr)
```

```
install.packages("installr")
library(installr)
check.for.updates.R()
```

```
install.R()
```

- Rstudio에서는 설치 이후 한번만 설정하면 됨



Tool → Install Packages → 원하는 패키지 명 입력 Install 버튼을 누름
패키지 설치하면 항상 Library 호출을 해줘야 함