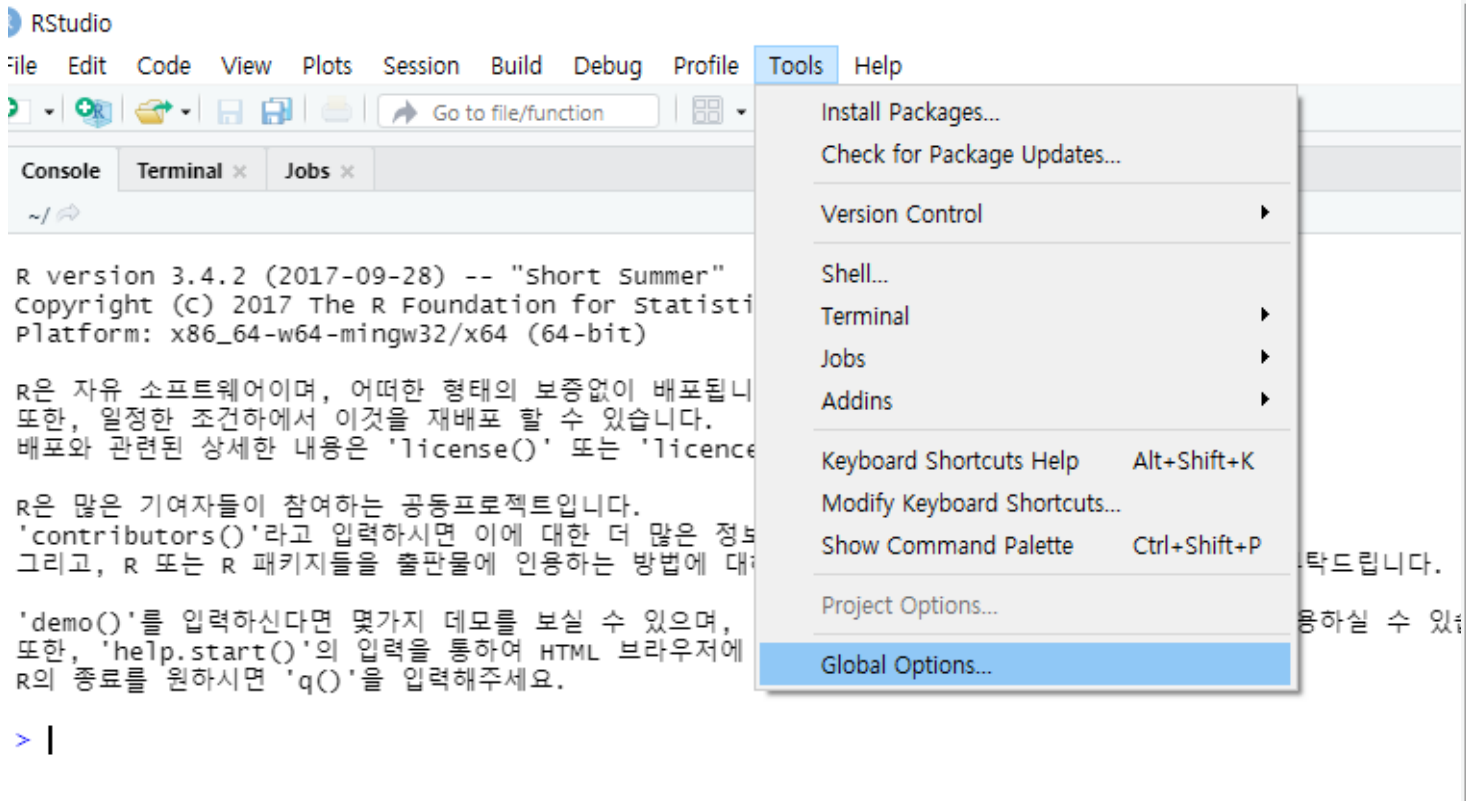
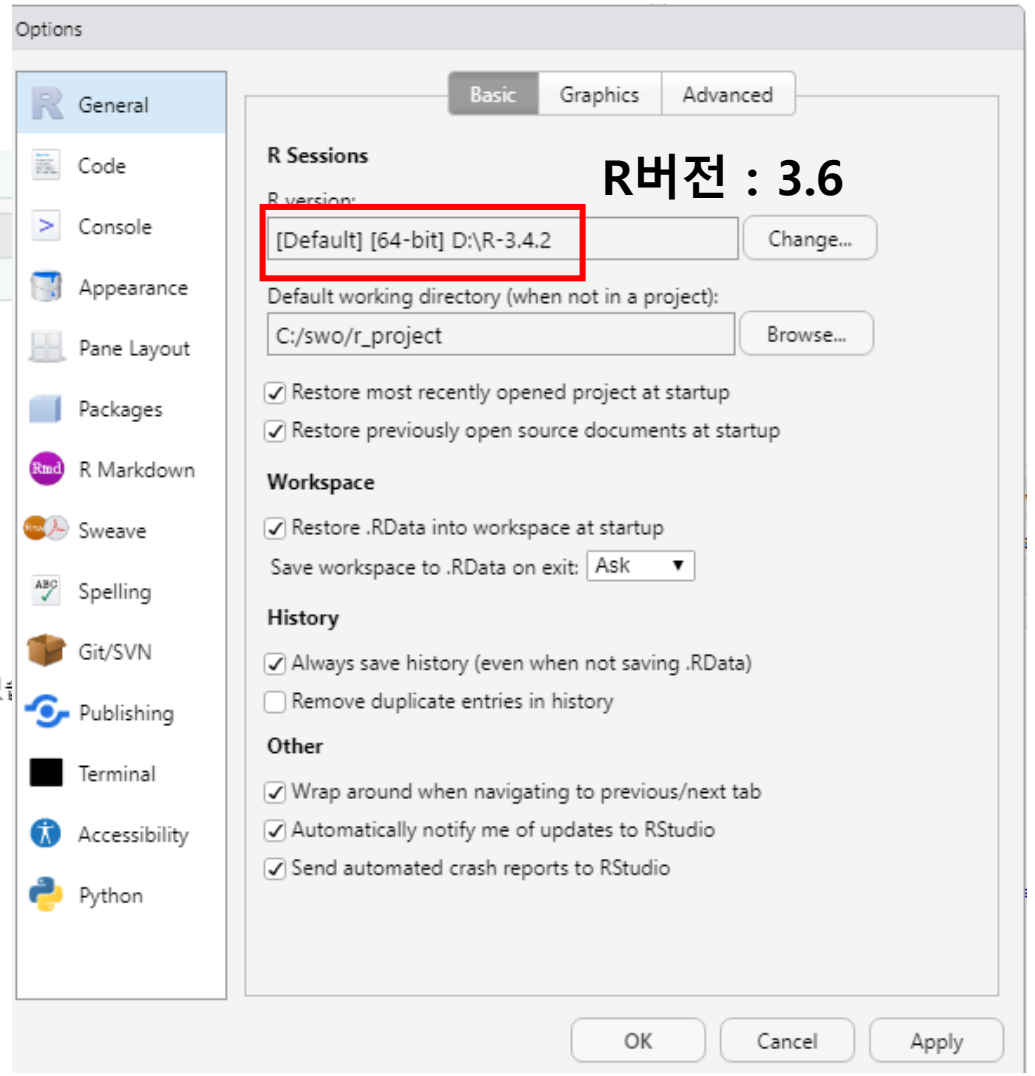
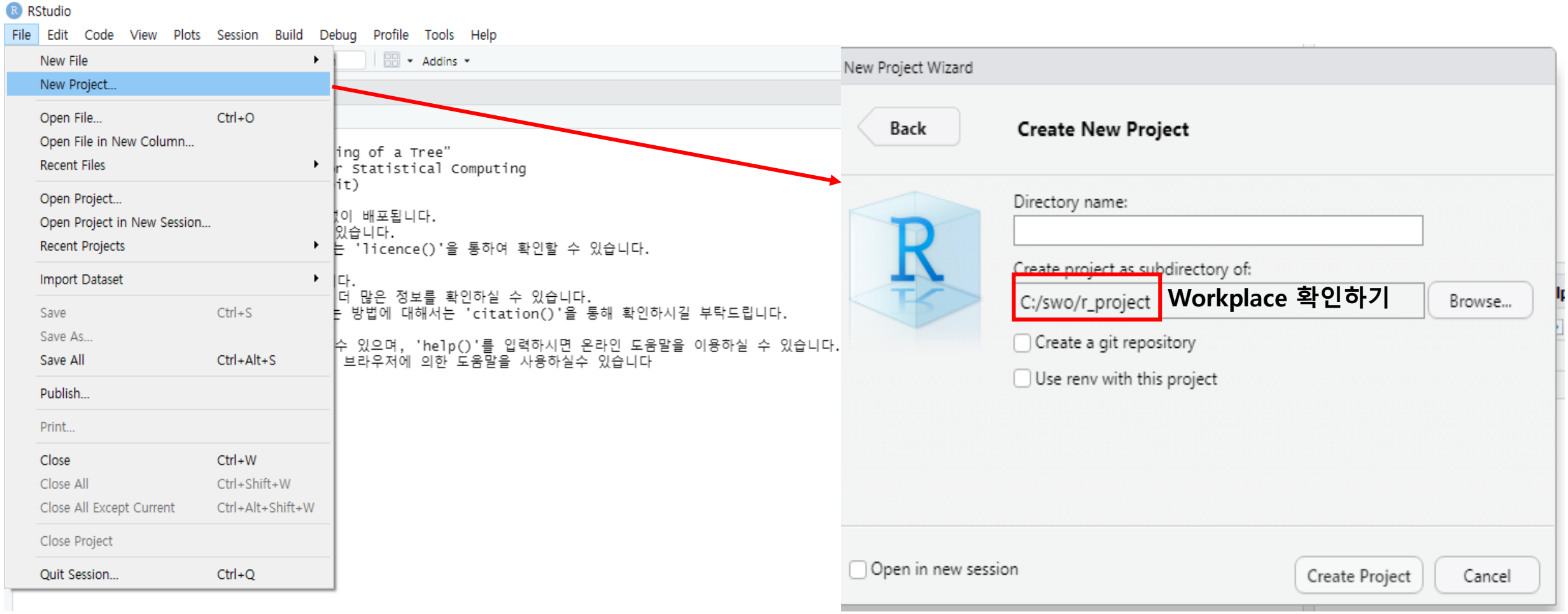
# 기본설정

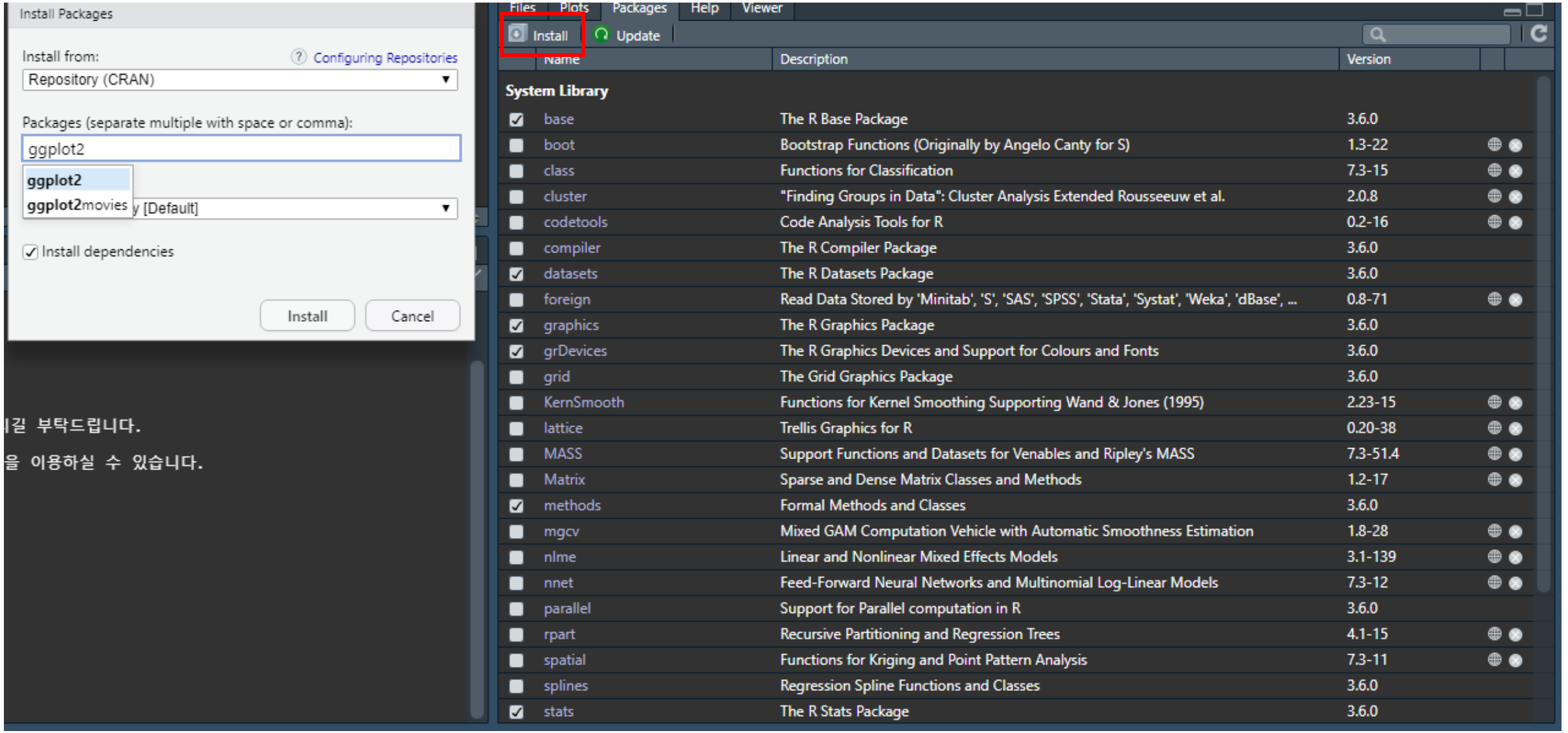

RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function
Console Terminal Jobs
~/
R version 3.4.2 (2017-09-28) -- "Short Summer"
Copyright (C) 2017 The R Foundation for Statisti
Platform: x86_64-w64-mingw32/x64 (64-bit)
R은 자유 소프트웨어이며, 어떠한 형태의 보증없이 배포됩니
또한, 일정한 조건하에서 이것을 재배포 할 수 있습니다.
배포와 관련된 상세한 내용은 'license()' 또는 'licence
R은 많은 기여자들이 참여하는 공동프로젝트입니다.
'contributors()'라고 입력하시면 이에 대한 더 많은 정보
그리고, R 또는 R 패키지들을 출판물에 인용하는 방법에 대
'demo()'를 입력하신다면 몇가지 데모를 보실 수 있으며,
또한, 'help.start()'의 입력을 통하여 HTML 브라우저에
R의 종료를 원하시면 'q()'을 입력해주세요.
>
Install Packages...
Check for Package Updates...
Version Control
Shell...
Terminal
Jobs
Addins
Keyboard Shortcuts Help Alt+Shift+K
Modify Keyboard Shortcuts...
Show Command Palette Ctrl+Shift+P
Project Options...
Global Options...


Options
General
Code
Console
Appearance
Pane Layout
Packages
R Markdown
Sweave
Spelling
Git/SVN
Publishing
Terminal
Accessibility
Python
Basic Graphics Advanced
R Sessions
R버전 : 3.6
R version:
[Default] [64-bit] D:\R-3.4.2
Change...
Default working directory (when not in a project):
C:/swo/r_project
Browse...
Restore most recently opened project at startup
Restore previously open source documents at startup
Workspace
Restore .RData into workspace at startup
Save workspace to .RData on exit: Ask
History
Always save history (even when not saving .RData)
Remove duplicate entries in history
Other
Wrap around when navigating to previous/next tab
Automatically notify me of updates to RStudio
Send automated crash reports to RStudio
OK
Cancel
Apply

# 프로젝트 생성


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
New File
New Project...
Open File... Ctrl+O
Open File in New Column...
Recent Files
Open Project...
Open Project in New Session...
Recent Projects
Import Dataset
Save Ctrl+S
Save As...
Save All Ctrl+Alt+S
Publish...
Print...
Close Ctrl+W
Close All Ctrl+Shift+W
Close All Except Current Ctrl+Alt+Shift+W
Close Project
Quit Session... Ctrl+Q
Addins
New Project Wizard
Back
Create New Project
Directory name:
Create project as subdirectory of:
C:/swo/r_project
Workplace 확인하기
Browse...
Create a git repository
Use renv with this project
Open in new session
Create Project
Cancel

# 라이브러리 설치


Install Packages
Install from:
Configuring Repositories
Repository (CRAN)
Packages (separate multiple with space or comma):
ggplot2
ggplot2
ggplot2movies
y [Default]
Install dependencies
Install
Cancel
길 부탁드립니다.
을 이용하실 수 있습니다.
Files
Plots
Packages
Help
Viewer
Install
Update
Name
Description
Version
System Library
base The R Base Package 3.6.0
boot Bootstrap Functions (Originally by Angelo Canty for S) 1.3-22
class Functions for Classification 7.3-15
cluster "Finding Groups in Data": Cluster Analysis Extended Rousseeuw et al. 2.0.8
codetools Code Analysis Tools for R 0.2-16
compiler The R Compiler Package 3.6.0
datasets The R Datasets Package 3.6.0
foreign Read Data Stored by 'Minitab', 'S', 'SAS', 'SPSS', 'Stata', 'Systat', 'Weka', 'dBase', ... 0.8-71
graphics The R Graphics Package 3.6.0
grDevices The R Graphics Devices and Support for Colours and Fonts 3.6.0
grid The Grid Graphics Package 3.6.0
KernSmooth Functions for Kernel Smoothing Supporting Wand & Jones (1995) 2.23-15
lattice Trellis Graphics for R 0.20-38
MASS Support Functions and Datasets for Venables and Ripley's MASS 7.3-51.4
Matrix Sparse and Dense Matrix Classes and Methods 1.2-17
methods Formal Methods and Classes 3.6.0
mgcv Mixed GAM Computation Vehicle with Automatic Smoothness Estimation 1.8-28
nlme Linear and Nonlinear Mixed Effects Models 3.1-139
nnet Feed-Forward Neural Networks and Multinomial Log-Linear Models 7.3-12
parallel Support for Parallel computation in R 3.6.0
rpart Recursive Partitioning and Regression Trees 4.1-15
spatial Functions for Kriging and Point Pattern Analysis 7.3-11
splines Regression Spline Functions and Classes 3.6.0
stats The R Stats Package 3.6.0

```r
install.packages("ggplot2")
install.packages("corrplot")
install.packages("lattice")
#console clear : ctrl + L
#Case sensitivity

library(corrplot) #ctrl+shift+1: RScript Zoom+=
library(lattice)

a = mtcars #여러 차에 대한 정보들이 담긴 데이터
a

#항목확인 $, 상관관계 확인하기기
mtcorrs = cor(mtcars$gear , mtcars$carb)
mtcorrs

#gear~carb에 대한 , dtat : 사용할 데이터프레임
xyplot(gear~carb, data = mtcars)   a
lm = plot(mtcars$gear , mtcars$carb) #회귀선 생성 b
abline(lm(mtcars$gear~mtcars$carb)) #lm : 회귀선 c

#전체데이터에 대한 상관관계확인인
mtcorrs2 = cor(mtcars)
mtcorrs2
round(mtcorrs2, 2)
corrplot(mtcorrs2) #heatmap d
plot(mtcars) #pairplot e


#무게와 마일간의 관계 : 상관계수, 그레프로 그려보기
corr1 = cor(mtcars$wt, mtcars$mpg)
corr1 #-0.8676594
xyplot(wt~mpg, data = mtcars)
lm = plot(mtcars$wt, mtcars$mpg)
abline(lm(mtcars$wt~mtcars$mpg))

#전체 항목 중에서 양의 상관계수가 제일높은 것은? 배기량 / 실린더
#전체 항목 중에서 음의 상관계수가 제일 높은 것은? 무게 / 마일
```