

2 ^ 4 Rules of TheRBootcamp

1. Everything in R is an object
2. Use <- to create objects
3. Name objects with _
4. All objects have classes
5. Everything happens through functions
6. Functions have arguments
7. Arguments can have defaults
8. Functions expect certain object classes
9. View help files with ?
10. Data is stored in data frames
11. Select variables from a data frame with \$
12. Use RStudio Projects
13. Create separate folders for Data, Code
14. First load packages with library(), then load data
15. Use comments and spacing for readability
16. Struggle and ask for help!

Use lots of comments with #

Start by loading packages with library()

Create new objects with assignment arrow <-

Assign key results (like a statistical test) to an object

Create a folder for each content type

Always use projects!

Press Tab to easily find external files

Press Tab to see function arguments

Put all data files in a "Data" folder

The screenshot displays the RStudio interface. The top pane shows the script 'TheRBootcamp_Cheatsheet.R' with the following code:

```

1 # Basel R Bootcamp cheatsheet!
2 # www.therbootcamp.com
3
4 # Load packages -----
5 # Note! Each must be installed with install.packages()
6
7 library(tidyverse)
8 library(skimm)
9 library(broom)
10
11 # Load data from external files -----
12
13 mcdonalds <- read_csv(file = "1_Data/mcdonalds.csv")
14 baselers <- read_csv(file = "1_Data/1")
15
16 # Explore data -----
17
18 class(mcdonalds) # Show object class
19 head(mcdonalds) # Print first few rows
20 dim(mcdonalds) # Get number of rows and columns
21
22 # Calculate descriptives -----
23
24 mean(mcdonalds$Calories)
25 mean(mcdonalds$Sodium, na.rm = TRUE)
26
27 # Conduct tests -----
28
29 # Correlation between calories and sodium
30
31 cal_sod_htest <- cor.test(x = mcdonalds$Calories,
32 y = mcdonalds$Sodium)
33
34 names(cal_sod_htest) # Show all named elements
35 cal_sod_htest$p.value # Just the p-value
36 tidy(cal_sod_htest) # 'tidy' table of results
37

```

The bottom pane shows the file explorer for the project 'Bootcamp_Example_Project'. It lists the following files and folders:

- 0_Materials
- 1_Data
 - baselers.csv (827.9 KB, Jun 29, 2018, 11:24 PM)
 - happiness.csv (28.8 KB, Jul 4, 2018, 9:33 PM)
 - mcdonalds.csv (29.3 KB, Mar 3, 2017, 12:31 PM)
- 2_Code