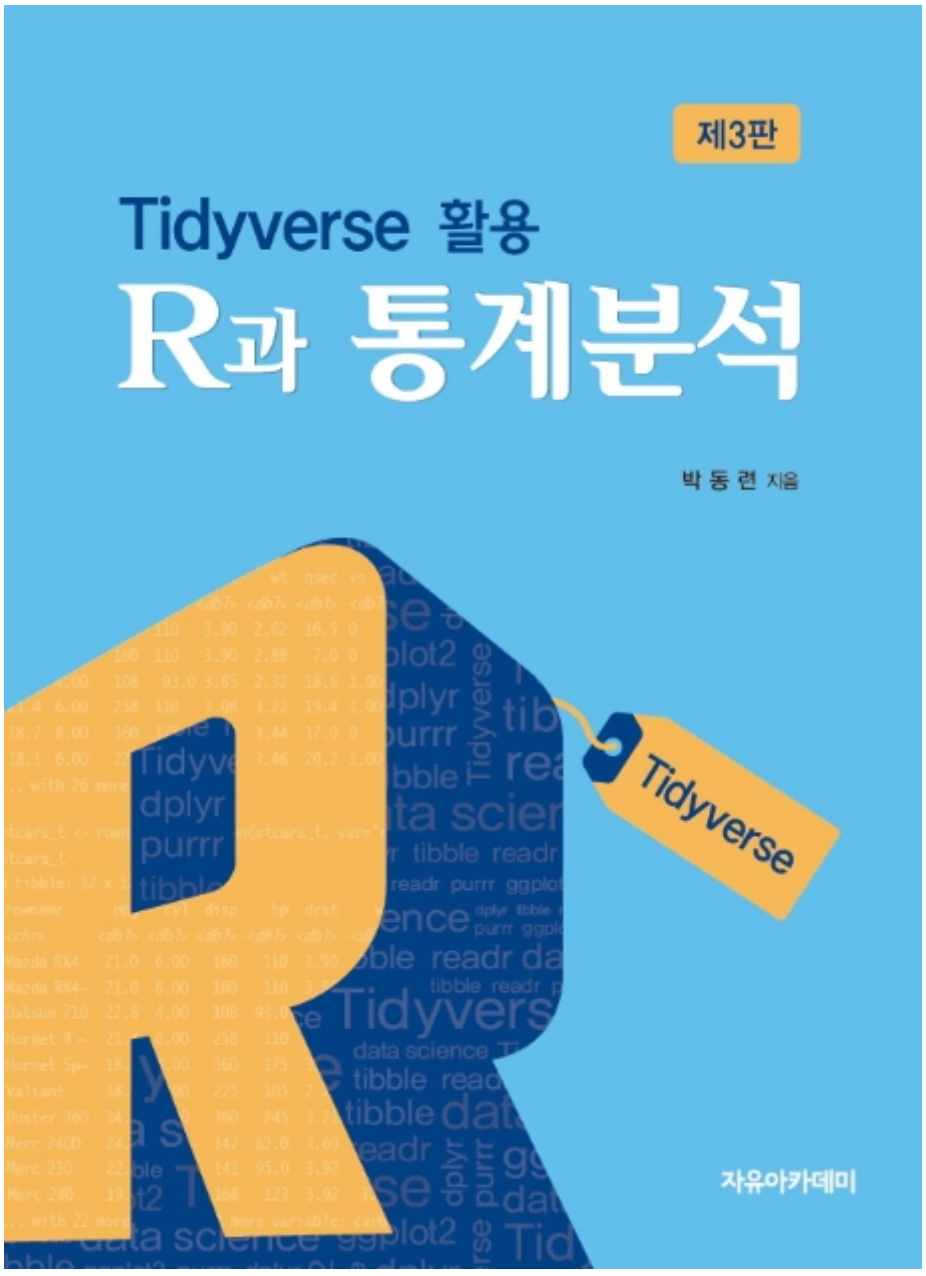
R

2022-02-12

Contents


제3판
Tidyverse 활용
R과 통계분석
박 동 련 지음
Tidyverse
자유아카데미

Chapter 1

R

Placeholder

1.1 R

1.2 R

1.3 RStudio R

1.4

1.5

1.6

1.7 R :

1.7.1

1.7.2

1.7.3 tidyverse

Chapter 2

R

Placeholder

2.1

2.1.1

2.1.2

2.1.2.1

2.1.2.2

2.1.3

2.1.4

2.1.5

2.1.6

2.2

2.2.1

2.2.2

2.3

2.4

2.4.1

2.4.2

2.5

2.5.1

2.5.2

2.5.3 `with()`

2.6 Tibble:

2.6.1 Tibble

2.6.2 Tibble

2.7

2.8

.

- iris 1~3 51~53 101~103 .

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
1	5.1	3.5	1.4	0.2	setosa
2	4.9	3.0	1.4	0.2	setosa
3	4.7	3.2	1.3	0.2	setosa
51	7.0	3.2	4.7	1.4	versicolor
52	6.4	3.2	4.5	1.5	versicolor
53	6.9	3.1	4.9	1.5	versicolor
101	6.3	3.3	6.0	2.5	virginica
102	5.8	2.7	5.1	1.9	virginica
103	7.1	3.0	5.9	2.1	virginica

- iris Sepal.Length, Sepal.Width, Petal.Length, Petal.Width .
- 150 Petal.Width 1 Petal.Length 4 . .

2. mtcars 1974 32 .

- mpg grade . , $\bar{x}$ sd mpg .

$\text{mpg} \leq \bar{x} - sd$	grade = "Bad"
$\bar{x} - sd < \text{mpg} \leq \bar{x} + sd$	grade = "Good"
$\text{mpg} > \bar{x} + sd$	grade = "Excellent"

- mtcars model
- grade Excellent model mpg .
- grade Bad mpg .

Chapter 3

Placeholder

3.1 : readr

3.1.1 read_table()

3.1.2 read_csv() CSV

3.1.3 read_fwf()

3.2 Excel

3.3 SAS

3.4 HTML

Chapter 4

dplyr

Placeholder

4.1

4.1.1 : filter()

4.1.2 : slice()

4.1.3 : arrange()

4.1.4 : distinct()

4.2

4.2.1 : select()

4.2.2 : rename() rename_with()

4.2.3 : relocate()

4.2.4 : mutate() transmute()

4.3 : summarise()

4.4

4.4.1 : group_by()

4.4.2

4.5 : across()

4.6 : rowwise()

Chapter 5

ggplot2

(Visualization) . ,
. Figure 5.1 Cleveland(1993)
. 1930 . 6 10 2 ,
Morris 1932 1931 . 6 Morris
, .

```
-- Attaching packages --------------------------------------- tidyverse 1.3.1 --
v ggplot2 3.3.5     v purrr   0.3.4
v tibble  3.1.6     v dplyr   1.0.7
v tidyr   1.1.4     v stringr 1.4.0
v readr   2.1.1     v forcats 0.5.1
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
```

R . plot() base graphics ,
ggplot2 . .

ggplot2 core tidyverse library(tidyverse) .

5.1 ggplot2

ggplot2 mpg displ hwy . displ , hwy .

```
> ggplot(data = mpg) +
+   geom_point(mapping = aes(x = displ, y = hwy))
```

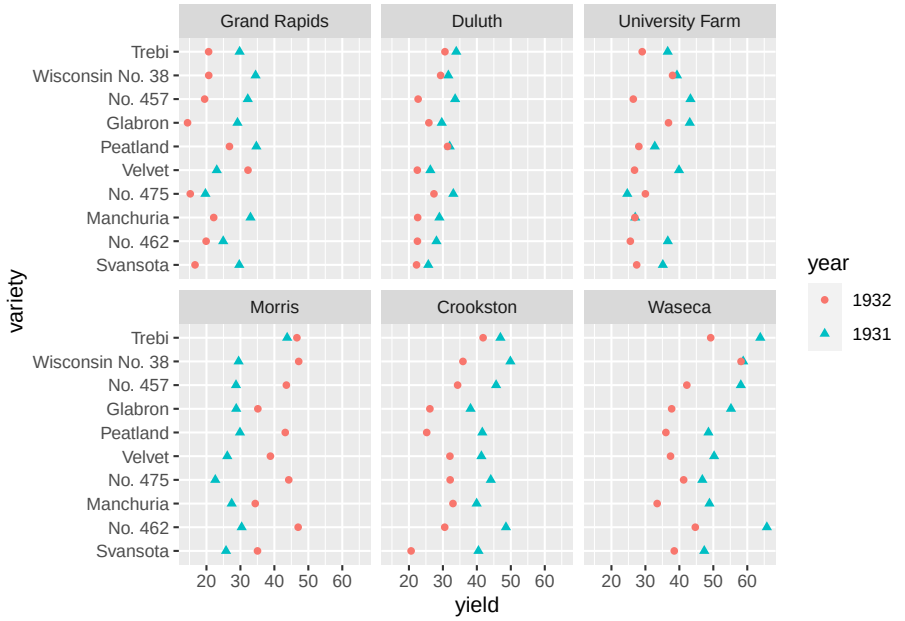


Figure 5.1:

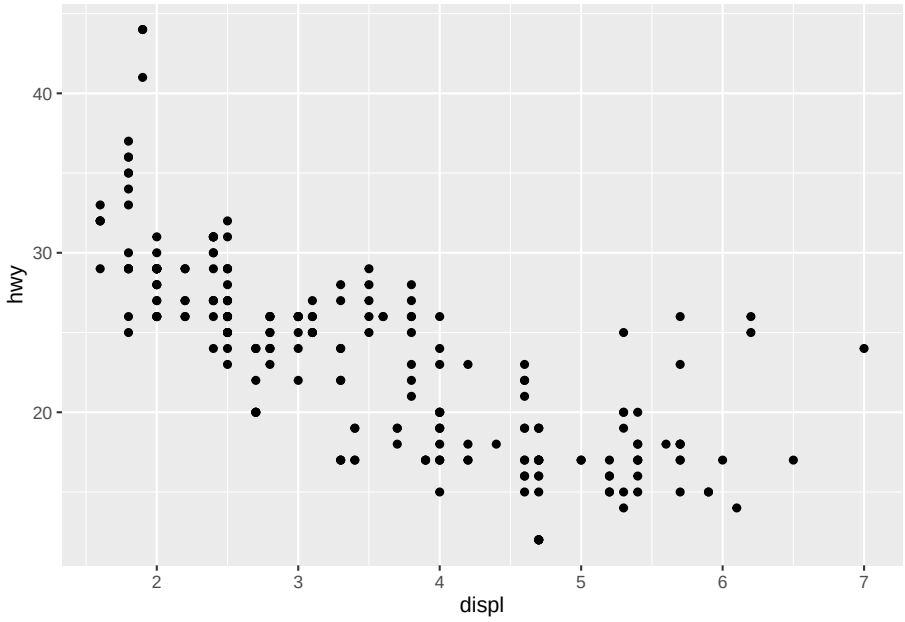


Figure 5.2: ggplot2

ggplot2 ggplot() . data ,
. (coordinate system) , . ggplot()
.

geom_point() . ggplot2 (layer) , Figure
5.2 . geom geom_point() , .

geom mapping , aes() . (mapping)
(aesthetic) , aes() x y X Y .

- ggplot2

ggplot2 . , ,
. ggplot2 3 <Data>, <Geom_Function>,
<Mappings> .

```
> ggplot(data = <Data>) +
+   <Geom_FUnction>(mapping = aes(<Mappings>))
```

<Data> , <Geom_Function> geom .
geom . <Mappings> (, ,) .
3 . .