R

2022-08-26

# Contents

			7
1	$\mathbf{R}$		9
	1.1	R	9
	1.2	$R \qquad \dots $	9
	1.3	RStudio R	9
	1.4		9
	1.5		9
	1.6		9
	1.7	$R \ :  \dots \dots$	9
_			
2	${f R}$		11
2	<b>R</b> 2.1		<b>11</b> 13
2	2.1		13
2	2.1 2.2		13 13
2	2.1		13
2	<ul><li>2.1</li><li>2.2</li><li>2.3</li><li>2.4</li></ul>		13 13 13 13
2	2.1 2.2 2.3		13 13 13
2	2.1 2.2 2.3 2.4 2.5	Tibble:	13 13 13 13

3			15
	3.1	: readr	15
	3.2	Excel	15
	3.3	SAS	15
	3.4	$\operatorname{HTML} \qquad \dots $	15
	3.5		15
4	dply	vr	17
	4.1		18
	4.2		18
	4.3	: summarise()	18
	4.4		18
	4.5	: across()	18
	4.6	: rowwise()	18
	4.7		18
	1.,		
5	ggpl		19
5			
5	ggpl	Lot2	19
5	ggpl 5.1	_ot2 ggplot2	<b>19</b>
5	ggpl 5.1 5.2	ggplot2 : Mapping	19 19
5	ggpl 5.1 5.2 5.3	ggplot2	19 19 19
5	ggpl 5.1 5.2 5.3 5.4	ggplot2  : Mapping	19 19 19 19
5	ggpl 5.1 5.2 5.3 5.4 5.5	ggplot2  : Mapping	19 19 19 19 19 19
5	ggpl 5.1 5.2 5.3 5.4 5.5 5.6	ggplot2  : Mapping	19 19 19 19 19 19 19
5	ggp1 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	ggplot2  : Mapping	19 19 19 19 19 19 19 19
	ggp1 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8	ggplot2  : Mapping	19 19 19 19 19 19 19 19
	ggp1 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 Tidy	ggplot2  : Mapping	19 19 19 19 19 19 19 19 21

CONTENTS	F
CONTENTS	5
CONTENIO	· ·

7	${f R}$		23
	7.1		24
	7.2		24
	7.3		24
	7.4		24
	7.5		24
	7.6	purrr	24
	7.7		24
8		2	25
	8.1	R	25
	8.2		25
	8.3		25
	8.4		25
9		2	27
	9.1		28
	9.2		28
	9.3		28
	9.4		28
	9.5		28

6 CONTENTS

8 CONTENTS

# $\mathbf{R}$

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

10 CHAPTER 1. R

 ${f R}$ 

12 CHAPTER 2. R

2.1.

- 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

14 CHAPTER 2. R

- 3.1 : readr
- 3.1.1 read\_table()
- 3.1.2 read\_csv()  $\operatorname{CSV}$
- $3.1.3 \quad {\tt read\_fwf()}$
- 3.2 Excel
- 3.3 SAS
- 3.4 HTML
- 3.5

16 CHAPTER 3.

dplyr

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()

4.7

# ggplot2

#### Placeholder

5.1 ggplot2

5.2 : Mapping

5.3 : Facet

5.4: Geometric object

5.5 : Statistical transformation

5.6 : Position adjustments

5.7 : Coordinate system

5.8

# ${\bf Tidy verse}$

Placeholder

```
6.1 tidyr tidy
6.1.1 : pivot_longer() pivot_wider()
```

. - 0 . -

6.1.2 : separate() unite()

6.2 dplyr

6.3 stringr

6.3.1 stringr

6.3.2 stringr

 $\mathbf{R}$ 

24 CHAPTER 7. R

7.1

7.1.1

7.1.2

7.1.3

7.1.4

7.1.5

7.2

7.2.1 if()

7.2.2 ifelse()

7.2.3 switch()

7.3

7.3.1 for

7.3.2 while

7.4

7.5

7.5.1

7.5.2

7.6 purrr

7.7

- 8.1 R
- 8.2
- 8.2.1
- 8.2.2
- 8.2.3
- 8.2.4 t-
- 8.3
- 8.3.1
- 8.3.2
- 8.3.3
- 8.4

26 CHAPTER 8.

28 CHAPTER 9.

9.1

9.1.1

9.1.2

9.1.3 Cleveland

9.2

9.2.1

9.2.2

9.3

9.3.1

9.3.2

9.3.3

9.3.4

9.3.5

9.3.6

9.4

9.4.1

9.4.2

9.5