

R

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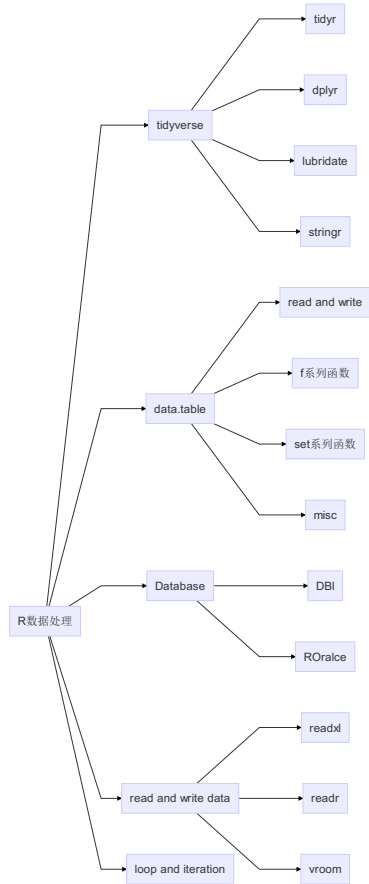
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Chapter 1

R R ETL R shiny web

R tidyverse data.table co



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R ,

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:

: <https://www.yuque.com/zyufei>

```
#
sessionInfo()
#> R version 4.0.5 (2021-03-31)
#> Platform: x86_64-w64-mingw32/x64 (64-bit)
#> Running under: Windows 10 x64 (build 19041)
#>
#> Matrix products: default
#>
#> locale:
#> [1] LC_COLLATE=Chinese (Simplified)_China.936
#> [2] LC_CTYPE=Chinese (Simplified)_China.936
#> [3] LC_MONETARY=Chinese (Simplified)_China.936
#> [4] LC_NUMERIC=C
#> [5] LC_TIME=Chinese (Simplified)_China.936
#>
#> attached base packages:
#> [1] stats      graphics  grDevices  utils      datasets  methods   base
#>
#> other attached packages:
#> [1] DiagrammeR_1.0.6.1
#>
#> loaded via a namespace (and not attached):
#> [1] bookdown_0.22      ps_1.6.0           visNetwork_2.0.9   digest_0.6.27
#> [5] R6_2.5.0           jsonlite_1.7.2     magrittr_2.0.1     evaluate_0.14
#> [9] rlang_0.4.11       stringi_1.6.1      rstudioapi_0.13    callr_3.7.0
#> [13] rmarkdown_2.8      webshot_0.5.2      RColorBrewer_1.1-2 tools_4.0.5
#> [17] stringr_1.4.0      htmlwidgets_1.5.3  glue_1.4.2         processx_3.5.2
#> [21] xfun_0.22          yaml_2.2.1         compiler_4.0.5     htmltools_0.5.1.1
#> [25] knitr_1.33
```


Chapter 2

R R
Excel csv txt

2.1 readxl

readxl R Excel (xlsx) readxl
readxl

2.1.1

CRAN tidyverse

```
install.packages("tidyverse")
```

readxl tidyverse library(readxl)

CRAN readxl;

```
install.packages("readxl")
```

github

```
# install.packages("devtools")  
devtools::install_github("tidyverse/readxl")
```

2.1.2

1.

readxl

- readxl xlsx

```
library(readxl)
readxl_example()
readxl_example("clippy.xls")
```

read_excel() xls xlsx

```
xlsx_example <- readxl_example("datasets.xlsx")
read_excel(xlsx_example)
```

excel_sheets() Excel sheet

```
excel_sheets(xlsx_example)
```

worksheet sheet

xlsx sheets sheet sheet

```
read_excel(xlsx_example, sheet = "chickwts")
```

xlsx ?read_excel()

```
read_excel(path, sheet = NULL, range = NULL, col_names = TRUE,
  col_types = NULL, na = "", trim_ws = TRUE, skip = 0,
  n_max = Inf, guess_max = min(1000, n_max),
  progress = readxl_progress(), .name_repair = "unique")
```

range Excle , as range = "D12:F15" or range = "R1C12:R6C15".

col_types : "skip", "guess", "logical", "numeric", "date",
"text" or "list"

2.2 writexl

writexl Excel Excel

2.2.1

```
install.packages("writexl")
```

```
write_xlsx(  
  x,  
  path = tempfile(fileext = ".xlsx"),  
  col_names = TRUE,  
  format_headers = TRUE,  
  use_zip64 = FALSE  
)
```

Excel

```
library(writexl)  
writexl::write_xlsx(iris, path = 'iris.xlsx')  
write_xlsx(list(mysheet1 = iris, mysheet2 = iris), path = 'iris.xlsx')
```

```
library(microbenchmark)  
library(nycflights13)  
microbenchmark(  
  writexl = writexl::write_xlsx(flights, tempfile()),  
  openxlsx = openxlsx::write.xlsx(flights, tempfile()),  
  times = 2  
)
```

```
df <- data.frame(  
  name = c("UCLA", "Berkeley", "Jeroen"),  
  founded = c(1919, 1868, 2030),  
  website = xl_hypermink(c("http://www.ucla.edu", "http://www.berkeley.edu", NA), "homepage")  
)  
df$page <- xl_formula('=(YEAR(TODAY()) - INDIRECT("B" & ROW()))')  
write_xlsx(df, 'universities.xlsx')  
  
# cleanup  
unlink('universities.xlsx')
```

2.3 openxlsx

openxlsx Excel R 4.2.3 Rcpp Excel
[:https://ycphs.github.io/openxlsx/index.html](https://ycphs.github.io/openxlsx/index.html)

- java
-
- Excel
- ggplot2
-
- Excel python
-
-

```
packageVersion("openxlsx")
```

```
: https://mp.weixin.qq.com/s/ZD0dJb0y8fsWGI1dCPh2mQ
```

2.3.1

```
#  
install.packages("openxlsx", dependencies = TRUE, repos = "https://mirrors.tuna.tsinghua.edu.cn/CRAN/")
```

```
install.packages(c("Rcpp", "devtools"), dependencies = TRUE)  
library(devtools)  
install_github("ycphs/openxlsx")
```

2.3.2

EXCEL R -openxlsx-