**R u Ready to Rumble? - R Software for Data Science, Graphics, and Statistics**

**Graham Centre, CSU Wagga Wagga,**

**11-12 April 2019**

The following are well-documented R script files which you can load into RStudio one-by-one and run. Remember to set-up a new RStudio Project which points to the directory on your hard-drive where you place these files.

**R script files**

babynames.R

hello\_world.R

first\_script.R

Anscombes\_quartet.R

reading\_data\_files.R

fixed\_format\_data\_read.R

serial\_format\_data\_read.R

missing\_values.R

column\_names.R

factor\_levels.R

more\_basic\_functions.R

manipulating\_dates\_and\_times.R

plotting.R

maps.R

plotmath\_examples.R

making\_output.R

get\_to\_know\_your\_R\_installation.R

rmarkdown\_making\_word\_document.Rmd

rmarkdown\_making\_HTML\_document.Rmd

reshape\_and\_summarise.R

quoting\_strings.R

text\_string\_manipulation.R

matrices\_and\_arrays.R

user\_defined\_functions.R

Easter\_over\_the\_ages.R

subsetting.R

loops\_and\_conditionals.R

lists\_in\_R.R

experimental\_design.R

This is a list of some example data files used by the R scripts:

**Data files**

climate.csv

column\_names.dat

dummy\_data.csv

dummy\_data.prn

dummy\_data.tab

dummy\_data.xls

dummy\_data.xlsx

Lupin-expt-2011.xlsx

fixed\_format\_data.txt

serial\_format\_data.txt

messy\_formatting.xlsx

temperatures.csv

**Output files (**Some output files are produced by the scripts)

design1.txt

my\_out1.csv

my\_out\_2.csv

my\_out\_3.csv

Output\_ver1.txt

Output\_ver2.txt

Output\_ver3.csv

Output\_ver4.bin

Output\_tab1\_v1.docx

Output\_tab1\_v2.docx

rmarkdown\_making\_word\_document.docx

rmarkdown\_making\_HTML\_document.html

**On-line resources**

<https://garthtarr.github.io/meatR/>

“Analytics for IndustRy” - MLA-sponsored workshop, introduces R as an efficient tool for data manipulation and visualisation. Online version is free.

<http://kbroman.org/dataorg/>

Organizing data in spreadsheets and avoiding common mistakes.

<http://www2.stat.duke.edu/~rcs46/lectures_2015/01-markdown-git/slides/naming-slides/naming-slides.pdf>

Best-practice for naming files and directories

<http://kkulma.github.io/2018-03-18-Prime-Hints-for-Running-a-data-project-in-R/>

Prime hints for running a data project in R.

<https://matthewlincoln.net/2018/03/26/best-practices-for-using-google-sheets-in-your-data-project.html>

Best practices for using google sheets (or Excel) in your data project.

<http://r4ds.had.co.nz/>

“R for Data Science” – free online version of the popular book. Some online resources provide solutions for the examples in the book.

<http://adv-r.had.co.nz/Introduction.html>

“Advanced R” book by Hadley Wickham – includes an R style guide. Or see the Google R style guide at: <https://google.github.io/styleguide/Rguide.xml>

[https://github.com/gadenbuie/tidyexplain#spread-and-gather](https://github.com/gadenbuie/tidyexplain%23spread-and-gather)

Explanations of “tidyverse” verbs using animations from “gganimate.

<http://www.r-bloggers.com/>

A great aggregating website for R-related online posts.

<http://www.statmethods.net/index.html>

Quick-R website (companion to the “R in Action” book).

<https://www.r-project.org/>

Main R website.

<https://www.rstudio.com/>

Main Rstudio website.

<https://www.rstudio.com/resources/cheatsheets/>

Cheat-sheets for numerous R-related topics.

Where else to get help with R?

CRAN, Google, StackOverflow, Rseek, Rstudio Community Forum, R-list-server email groups, sos package, CRAN task views, R Journal, twitter (#rstats), R4DS group on Slack.