Mastering R Markdown

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Contents

Chapter 1

About the book

This book aims to bring together lots of useful tips for R Markdown.

There are already several fantastic books out there which you may have already read:

- Dynamic documents and knitr
- R Markdown: The Definitive guide
- Authoring books with bookdown
- Blogdown

1.1 Ideas to be written up

- Use `(ref:tag)` to store page formatting options which might need to be reused. For example a page break
- Managing big projects: `source` is particularly useful for loading external scripts so that the R Markdown project isn't too bloated with code.
- Using subfigures within the R Markdown environments: https://stackoverflow.com/questions/12546365/subfigures-or-subcaptions-with-knitr/49086985#49086985
- Caching, and ways it can be tailored to suit analysis. This cache invalidation is a great example: https://stackoverflow.com/questions/18376008/invalidate-a-chunks-cache-when-uncached-chunk-changes
- Knitr hooks: these are explained within your previous book, but i I think a few more practical examples could be very useful for readers to see the power of it. -Designing custom behavior which can respond to change in outputs using `is_latex_output` etc. For example, you may want to have interactive tables using `DT:datatable` in the HTML output but print static versions in the PDF.
- Creating stylized tables using kableExtra: lots of fun things can be done with this package
- Using short author citations: https://stackoverflow.com/questions/48303890/using-short-author-citations-in-bookdown
  utm_medium=organic&utm_source=google_rich_qa&utm_campaign=google_rich_qa

Chapter 2

Introduction

Some text

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 2. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter **??**.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 2.1.

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2018) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

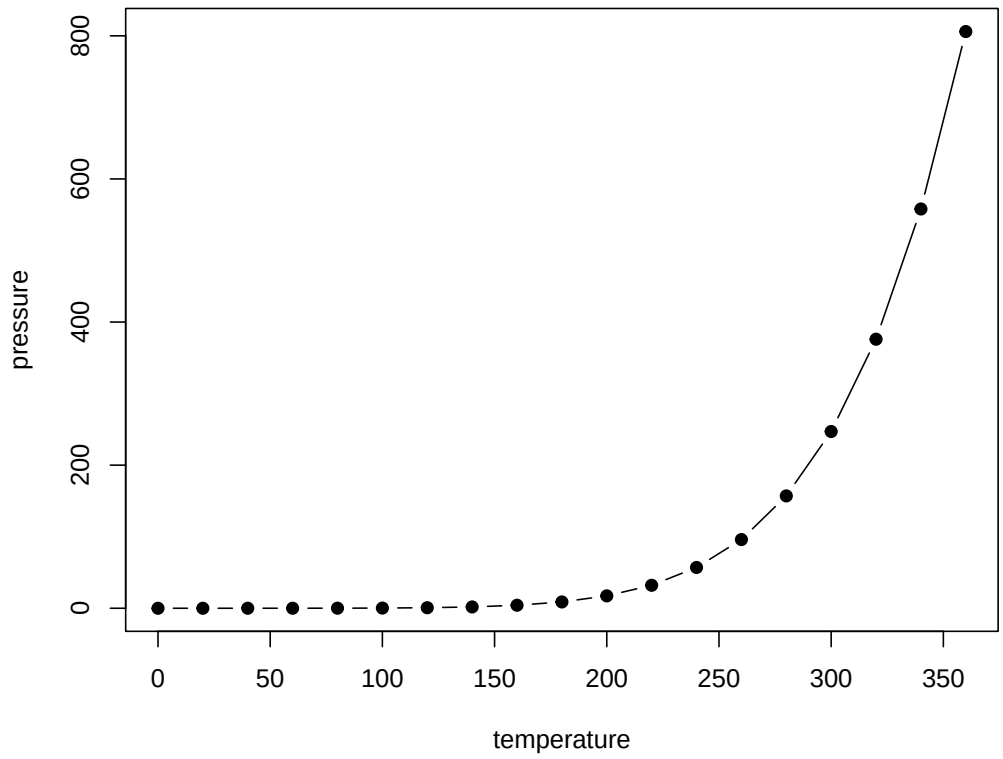

Figure 2.1: Here is a nice figure!

Table 2.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

Chapter 3

References

Chapter 4

LaTeX

For many authors, the main of long reports or books, the primary output will bee LaTeX
R Markdown is able to use

4.1 Inserting Commands

4.2 LaTeX preamble

4.3 Subfigures

4.4 Changing citation Engine

4.5 Altering Citation Style

Bibliography

Xie, Y. (2015). *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2018). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.7.8.