DRAFT Book Reproducible Templates

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Preface

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Why read this book

aaaaaaaaaaaaa

Structure of the book

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Software information and conventions

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Acknowledgments

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Prerequisites

This is a *sample* book written in **Markdown**. You can use anything that Pandoc's Markdown supports, e.g., a math equation $a^2 + b^2 = c^2$.

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading `#`.

To compile this example to PDF, you need to install XeLaTeX.

About the Author

Melinda Higgins has dual degrees in Chemometrics (PhD) and Statistics (MS) with 25 years experience in research, teaching, consulting, directing and managing projects. Her expertise includes programming/scripting languages (R, S, Pascal, Perl, Prolog) and statistical, mathematical, imaging, and geo-spatial processing software packages (R, SAS, SPSS, MATLAB, SYSTAT, ENVI, ESRI ArcView, IMAGINE). While at Georgia Tech Research Institute (1994-2011), she coordinated large team projects with rigorous timelines, milestone tracking and version control in the areas of remote sensing, geospatial information systems, sensor fusion and target recognition. In her current work at Emory (2007 –), she has 10+ yr expertise mentoring students and faculty in nursing and public health science research and scholarship. Her health research experience includes pattern recognition, phenotype characterizations and longitudinal modeling in heart failure, diabetes, cognitive impairment, and HIV/AIDS chronic disease populations.

Part I

Part One

Chapter 1

Introduction

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 1. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 3.

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 1.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 1.1.

```
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, 2017) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).

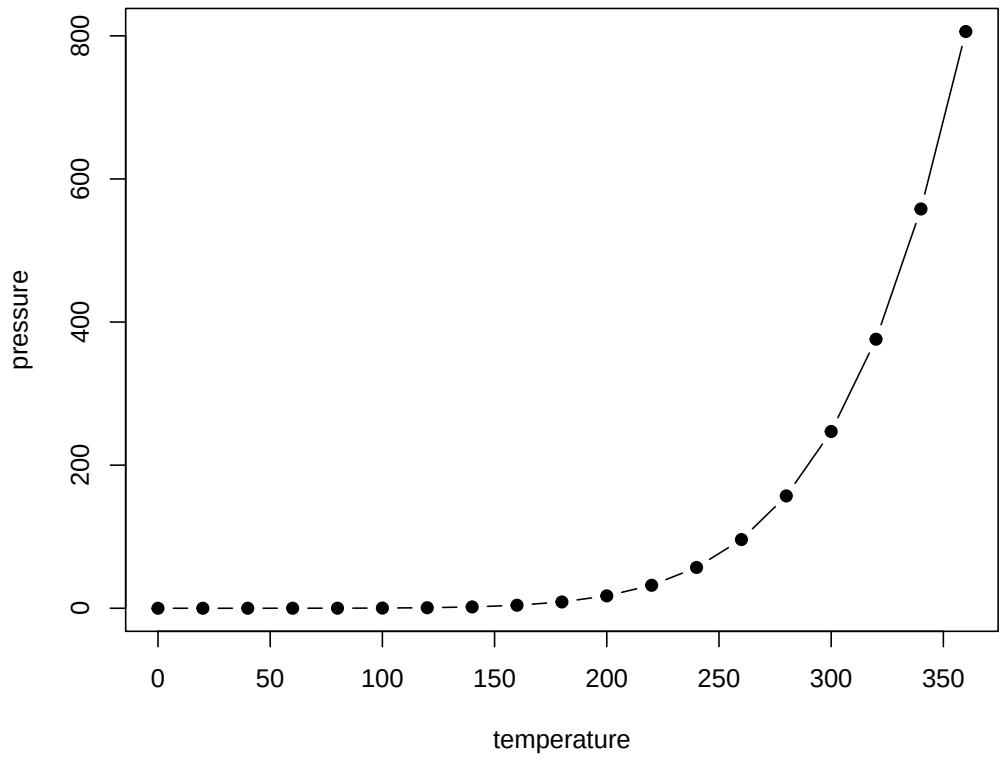

Figure 1.1: Here is a nice figure!

Table 1.1: 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 2

Literature

Here is a review of existing methods.

Part II

Part Two

Chapter 3

Methods

We describe our methods in this chapter.

add more random text .

Chapter 4

Applications

Some *significant* applications are demonstrated in this chapter.

4.1 Example one

4.2 Example two

Chapter 5

Final Words

We have finished a nice book .

some random text

Part III

Appendix

Appendix A

First appendix section

We have finished a nice book .

some random text

Appendix B

another appendix section

We have finished a nice book .

some random text

Bibliography

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

Xie, Y. (2017). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.5.15.

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