Goff Lab Manual

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Contents

Chapter 1

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:

```r
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.

Chapter 2

Welcome

Welcome to the Goff Lab at Johns Hopkins University School of Medicine!

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

```r
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.

```r
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).
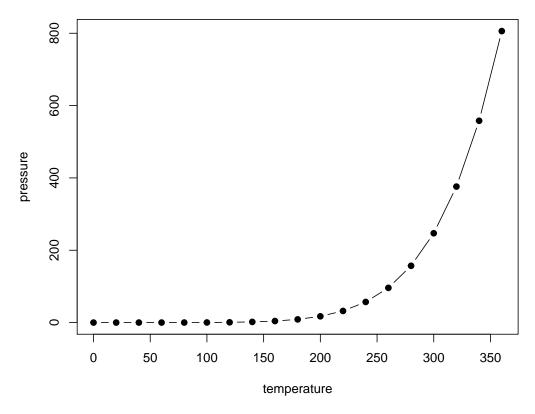
Figure 2.1: Here is a nice figure!

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

Research Focus

3.1 Broad Overview

3.2 Specific Projects

3.3 Open areas of interest

3.4 Trainee opportunities

Chapter 4

Expectations and responsibilities

We describe our methods in this chapter.

4.1 Everyone

4.1.1 Big picture

- Do work that you are proud of. Do work that others will care about.

4.1.2 Small picture

- Do not come to the lab if you are sick. Stay home and get healthy, and don't risk getting others sick.

4.2 PI (Loyal)

4.3 Lab Managers

4.4 Postdocs

4.5 Grad Students

4.6 Other Full Time Staff

4.7 Undergrad Students

4.8 Volunteers

Chapter 5

Data Management

5.1 Project-based

5.1.1 Reproducible Research

5.1.2 Useful Tools

5.2 Code

5.2.1 Version Control

5.3 Software

Chapter 6

Background reading

6.1 RNA-Seq

6.2 Single cell analysis

6.3 Computational Tools

6.4 Neuroscience

6.4.1 Neurodevelopment

6.4.2 Neurodegeneration

6.5 Cell Type Specific Responses

6.6 Long Noncoding RNAs

Chapter 7

Getting Started

7.1 Administrative Tasks

7.2 Accounts

7.3 Training

7.3.1 Online

7.3.2 In Person

Chapter 8

Lab Resources

Chapter 9

Code of Conduct

All members of the lab, along with visitors, are expected to agree with the following code of conduct. We will enforce this code as needed. We expect cooperation from all members to help ensuring a safe environment for everybody. Please also see the Johns Hopkins University Harassment Policy.

9.1 Harassment

9.1.1

Chapter 10

Funding

Chapter 11

General

Chapter 12

Human Subject Research

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.