A Minimal Book Example with Psicostat Template

A Handbook for ...

Psicostat

2021-03-04

Contents

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 XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.name/tinytex/.

Psicostat Template

Psicostat Template is based on Rstudio Bookdown-demo released under CC0-1.0 License and rstudio4edu-book under CC-BY.

Deploy Github Actions

Follow tutorial at https://medium.com/@delucmat/how-to-publish-bookdown-projects-with-github-actions-on-github-pages-6e6aecc7331e but note that github action https://github.com/Cecilapp/GitHub-Pages-deploy is slightly changed so we adapted de code. In particular now we have as last action:

```
- name: Deploy to GitHub Pages
       uses: Cecilapp/GitHub-Pages-deploy@v3
       env:
         GITHUB_TOKEN: ${{ secrets.GITHUB_TOKEN }}
```

```
      with:
        email: ${{ secrets.EMAIL }}
        build_dir: _site/
```

Moreover, we also installed `tinytex` and specified `rmarkdown::render_site(encoding = "UTF-8")` in the first job to obtain pdf and epub available versions as well.

HTML and LaTeX

Remember that as the output is compiled to create a website and a PDF you have to take care of defining options and environments in both cases. See official documeentation https://bookdown.org/yihui/bookdown/

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, 2020] in this sample book, which was built on top of R Markdown and **knitr** [Xie, 2015].

1.1 R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

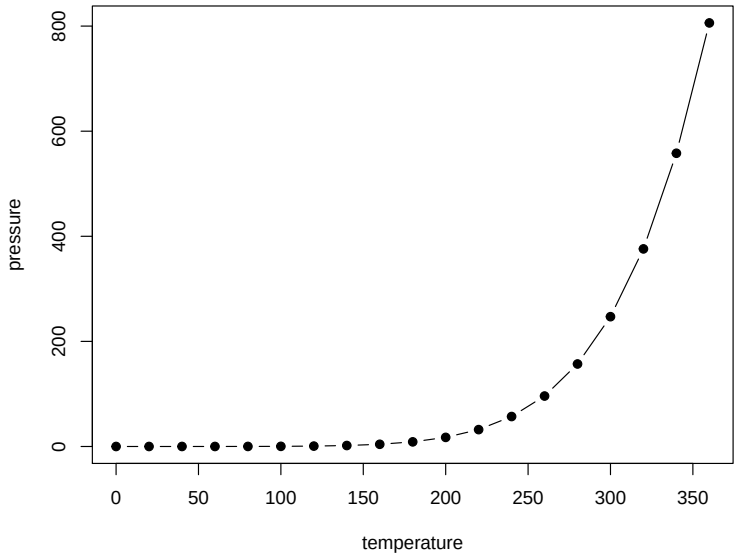


Figure 1.1: Here is a nice figure!

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

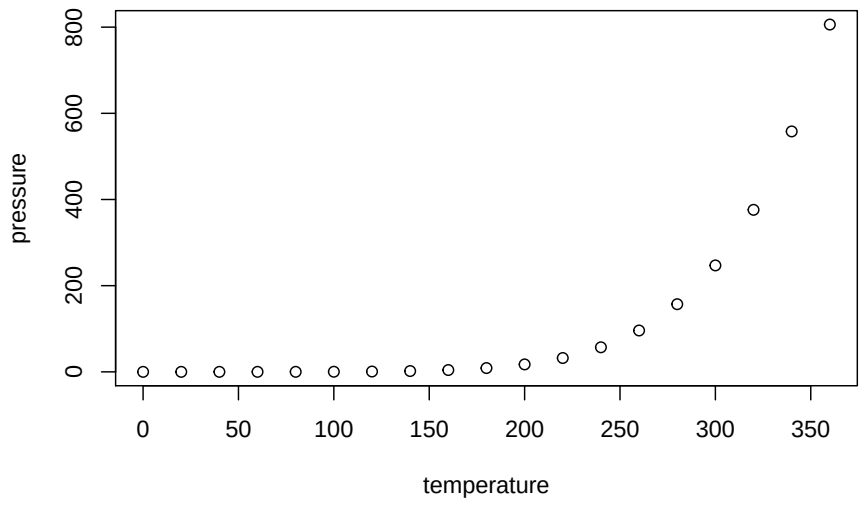
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

1.1.1 Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

1.2 Content Hyperlinks

1.2.1 Sections

See Section 1.2.1

1.2.2 Figures

1.2.2.1 Pictures

See Figure 1.2. Note: in chunks name do not use "_" but use "-" instead. `\@ref(fig:psicostat_logo)` do not work, `\@ref(fig:psicostat-logo)` works properly.

```
knitr::include_graphics('images/logo_psicostat.png')
```

Figure 1.2: Logo Psicostat

1.2.2.2 Plots

See Figure 1.3

```
plot(rnorm(10))
```

1.2.3 Tables

See r-package `kableExtra` documentation (link).

See Tabele 1.2

```
data(iris)

knitr::kable(iris[1:5,], caption = "Una esempio di tabella")
```

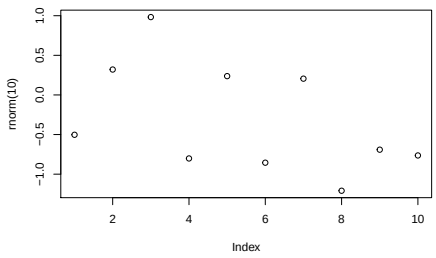


Figure 1.3: Random numbers

Table 1.2: Una esempio di tabella

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

1.3 APA cls

We are using apa 7 cls format. Citation Syntax (link).

1.4 Infobox

Illustrations included in `images/` are retrieved from rstudio4edu-book under CC-BY-NC. Remember to include an *Attributions* section in the book and repository's README file.

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Chapter 2

Literature

Here is a review of existing methods.

Chapter 3

Methods

We describe our methods in this chapter.

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.

Bibliography

Yihui Xie. *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition, 2015. URL http://yihui.name/knitr/. ISBN 978-1498716963.

Yihui Xie. *bookdown: Authoring Books and Technical Documents with R Markdown*, 2020. URL https://github.com/rstudio/bookdown. R package version 0.21.