### A Minimal Book Example

Yihui Xie

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12.2	Enumera	aciones		 			 			 
12.3	Paramet	ros		 			 			 
12.4	Flags			 			 			 

### 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.org/tinytex/.

#### Abstract

Este documento plantea una propuesta universal para la gestión de los argumentos pasados a un programa por línea de comandos para cualquier sistema operativo junto con el manual de uso para programas desarrollados en C++

#### disclaimer

As my mother tongue is Spanish and not forgetting that it is one of the most widely spoken languages in the world but for sack of accuracy this document has been written is Castillian

However, if someone is interested in the job or wants more information, I will be happy to translate the documents or help as much as possible.

In any case, for readability and maintainability reasons, I use English inside the code.

#### Introduction

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 5.

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)
```

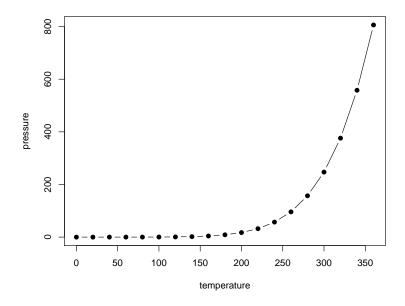


Figure 2.1: Here is a nice figure!

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

Table 2.1: Here is a nice table!

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

## Literature

Here is a review of existing methods.

#### Literature

- 4.1 Especificacion de argumentos
- 4.1.1 sistemas nix
- 4.1.2 sistemas windows
- 4.1.3 ZOS y otros
- 4.2 Conclusiones
- 4.3 Definiciones
- 4.3.1 Datos de entrada
- 4.3.2 Opciones
- 4.3.3 Flags
- 4.4 Incoherencias

## Methods

We describe our methods in this chapter.

# **Applications**

Some significant applications are demonstrated in this chapter.

- 6.1 Example one
- 6.2 Example two

## Final Words

We have finished a nice book.

#### **Definiciones**

- 8.1 Parametro
- 8.2 Argumento
- 8.3 Opcion
- 8.4 Flags
- 8.4.1 Concatenacion
- 8.5 Definicion

# Casos especiales

- 9.1 help
- 9.2 Acceso a las variables de entorno
- 9.3 Valores booleanos

# Ejemplos de codigos

### Verbos

Por definicion los parametros son inmutables, lo cual no implica que se puedan leer.

 $\bullet\;$  getXXX: Obtiene una referencia al parametro

• letXXX: Obtieneuna copia del parametro

• hasXXX: Indica siexiste o no

 $\bullet \;\; {\rm add} {\rm XXX} {\rm :} \; {\rm Permite \; incluir \; parametros}$ 

### Libreria cmdline

- 12.1 Introduccion
- 12.2 Enumeraciones
- 12.2.1 Type
- 12.2.2 Source
- 12.3 Parametros
- 12.4 Flags

### Excepciones

Si se produce un error durante el proceso de análisis de la línea de comandos o se produce un error en tiempo de ejecución se genera una excepción **CmdLineException** 

Distinguimos los siguientes tipos:

CmdLineParameterException; El parámetro es erroneo CmdLineValueException; el valor asociado alparámetro no es valido de acuerdo con el tipo indicado

CmdLineNotFoundException;runtime\_error;Se ha solicitado un parámetro que no existe CmdLineInvalidTypeException;Se ha solicitado una conversion no valida de un parámetro

Además, para gestionar la solicitud de ayuda, se generan las siguientes excepciones:

- HelpRequested
- HelpDetailedRequested

# **Bibliography**

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

Xie, Y. (2020). bookdown: Authoring Books and Technical Documents with R Markdown. R package version 0.21.