# Малая книга на Bookdown

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# Пролог

Русский алфавит состоит из 33 букв: «a», «б», «в», «г», «д», «е», «ё», «ж», «з», «и», «й», «к», «л», «м», «н», «о», «п», «р», «с», «т», «у», «ф», «х», «ц», «ч», «ш», «щ», «ъ», «ы», «ь», «э», «ю», «я».

Здесь я напишу Введение или Пролог, или Аннотацию Потом добавлю отступ – Красной строки для ПДФ-файл (уже добавил)

Lorem Ipsum - это текст-"рыба", часто используемый в печати и вэб-дизайне. Lorem Ipsum является стандартной "рыбой" для текстов на латинице с начала XVI века. В то время некий безымянный печатник создал большую коллекцию размеров и форм шрифтов, используя Lorem Ipsum для распечатки образцов. Lorem Ipsum не только успешно пережил без заметных изменений пять веков, но и перешагнул в электронный дизайн. Его популяризации в новое время послужили публикация листов Letraset с образцами Lorem Ipsum в 60-х годах и, в более недавнее время, программы электронной вёрстки типа Aldus PageMaker, в шаблонах которых используется Lorem Ipsum.

# About – Пролог

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

#### 1.1 Usage – Как сделать

Each **bookdown** chapter is an .Rmd file, and each .Rmd file can contain one (and only one) chapter. A chapter *must* start with a first-level heading: # A good chapter, and can contain one (and only one) first-level heading.

Use second-level and higher headings within chapters like: ## A short section or ### An even shorter section.

The index.Rmd file is required, and is also your first book chapter. It will be the homepage when you render the book.

## 1.2 Render book – Делаем книгу

You can render the HTML version of this example book without changing anything:

- 1. Find the Build pane in the RStudio IDE, and
- 2. Click on **Build Book**, then select your output format, or select "All formats" if you'd like to use multiple formats from the same book source files.

Or build the book from the R console:

```
bookdown::render_book()
```

To render this example to PDF as a bookdown::pdf\_book, you'll need to install XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.org/tinytex/.

# 1.3 Preview book – Предпросмотр

As you work, you may start a local server to live preview this HTML book. This preview will update as you edit the book when you save individual .Rmd files. You can start the server in a work session by using the RStudio add-in "Preview book", or from the R console:

bookdown::serve\_book()

# Hello bookdown – Это первый уровень

Добавил атрибут заголовку

Lorem Ipsum - это текст-"рыба", часто используемый в печати и вэб-дизайне. Lorem Ipsum является стандартной "рыбой" для текстов на латинице с начала XVI века. В то время некий безымянный печатник создал большую коллекцию размеров и форм шрифтов, используя Lorem Ipsum для распечатки образцов. Lorem Ipsum не только успешно пережил без заметных изменений пять веков, но и перешагнул в электронный дизайн. Его популяризации в новое время послужили публикация листов Letraset с образцами Lorem Ipsum в 60-х годах и, в более недавнее время, программы электронной вёрстки типа Aldus PageMaker, в шаблонах которых используется Lorem Ipsum.

All chapters start with a first-level heading followed by your chapter title, like the line above. There should be only one first-level heading (#) per .Rmd file.

#### 2.1 A section – Это секция, второй уровень

All chapter sections start with a second-level (##) or higher heading followed by your section title, like the sections above and below here. You can have as many as you want within a chapter.

#### An unnumbered section – Без номера

Chapters and sections are numbered by default. To un-number a heading, add a {.unnumbered} or the shorter {-} at the end of the heading, like in this section.

# **Cross-references**

Cross-references make it easier for your readers to find and link to elements in your book.

## 3.1 Chapters and sub-chapters

There are two steps to cross-reference any heading:

- 1. Label the heading: # Hello world {#nice-label}.
  - Leave the label off if you like the automated heading generated based on your heading title: for example, # Hello world = # Hello world {#hello-world}.
  - To label an un-numbered heading, use: # Hello world {-#nice-label} or {# Hello world .unnumbered}.
- 2. Next, reference the labeled heading anywhere in the text using \@ref(nice-label); for example, please see Chapter 3.
  - If you prefer text as the link instead of a numbered reference use: any text you want can go here.

## 3.2 Captioned figures and tables

Figures and tables *with captions* can also be cross-referenced from elsewhere in your book using \@ref(fig:chunk-label) and \@ref(tab:chunk-label), respectively.

See Figure 3.1.

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

Don't miss Table 3.1.

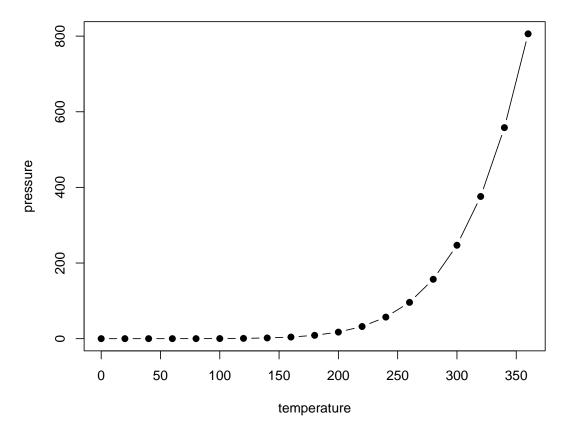


Рис. 3.1: Here is a nice figure!

```
knitr::kable(
  head(pressure, 10), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

Таблица 3.1: Here is a nice table!

temperature	pressure
0	0.0002
20	0.0012
40	0.0060
60	0.0300
80	0.0900
100	0.2700
120	0.7500
140	1.8500
160	4.2000
180	8.8000

# **Parts**

You can add parts to organize one or more book chapters together. Parts can be inserted at the top of an .Rmd file, before the first-level chapter heading in that same file.

```
Add\ a\ numbered\ part:\ \texttt{\#}\ \ (\texttt{PART})\ \ \texttt{Act\ one\ }\{\texttt{-}\}\ \textbf{(}followed\ by\ \texttt{\#}\ \ \texttt{A\ chapter}\textbf{)}
```

Add an unnumbered part: # (PART\\*) Act one {-} (followed by # A chapter)

Add an appendix as a special kind of un-numbered part: # (APPENDIX) Other stuff {-} (followed by # A chapter). Chapters in an appendix are prepended with letters instead of numbers.

# Footnotes and citations

#### **5.1** Footnotes

Footnotes are put inside the square brackets after a caret ^[]. Like this one ¹.

#### 5.2 Citations

Reference items in your bibliography file(s) using @key.

For example, we are using the **bookdown** package [Xie, 2023] (check out the last code chunk in index.Rmd to see how this citation key was added) in this sample book, which was built on top of R Markdown and **knitr** [Xie, 2015] (this citation was added manually in an external file book.bib). Note that the <code>.bib</code> files need to be listed in the index.Rmd with the YAML <code>bibliography</code> key.

The RStudio Visual Markdown Editor can also make it easier to insert citations: https://rstudio.github.io/visual-markdown-editing/#/citations

<sup>&</sup>lt;sup>1</sup>This is a footnote.

# **Blocks**

#### 6.1 Equations

Here is an equation.

$$f(k) = \binom{n}{k} p^k \left(1 - p\right)^{n - k} \tag{6.1}$$

You may refer to using \@ref(eq:binom), like see Equation (6.1).

## **6.2** Theorems and proofs

Labeled theorems can be referenced in text using \@ref(thm:tri), for example, check out this smart theorem 6.1.

**Theorem 6.1.** For a right triangle, if c denotes the length of the hypotenuse and a and b denote the lengths of the **other** two sides, we have

$$a^2 + b^2 = c^2$$

Read more here https://bookdown.org/yihui/bookdown/markdown-extensions-by-bookdown.html.

### 6.3 Callout blocks

The R Markdown Cookbook provides more help on how to use custom blocks to design your own callouts: https://bookdown.org/yihui/rmarkdown-cookbook/custom-blocks.html

# **Sharing your book**

#### 7.1 Publishing

HTML books can be published online, see: https://bookdown.org/yihui/bookdown/publishing.html

#### 7.2 404 pages

By default, users will be directed to a 404 page if they try to access a webpage that cannot be found. If you'd like to customize your 404 page instead of using the default, you may add either a \_404.Rmd or \_404.md file to your project root and use code and/or Markdown syntax.

### 7.3 Metadata for sharing

Bookdown HTML books will provide HTML metadata for social sharing on platforms like Twitter, Facebook, and LinkedIn, using information you provide in the <code>index.Rmd</code> YAML. To setup, set the <code>url</code> for your book and the path to your <code>cover-image</code> file. Your book's <code>title</code> and <code>description</code> are also used.

This gitbook uses the same social sharing data across all chapters in your book- all links shared will look the same.

Specify your book's source repository on GitHub using the <code>edit</code> key under the configuration options in the <code>\_output.yml</code> file, which allows users to suggest an edit by linking to a chapter's source file.

Read more about the features of this output format here:

https://pkgs.rstudio.com/bookdown/reference/gitbook.html

Or use:

?bookdown::gitbook

## Эпилог

Lorem Ipsum - это текст-"рыба", часто используемый в печати и вэб-дизайне. Lorem Ipsum является стандартной "рыбой" для текстов на латинице с начала XVI века. В то время некий безымянный печатник создал большую коллекцию размеров и форм шрифтов, используя Lorem Ipsum для распечатки образцов. Lorem Ipsum не только успешно пережил без заметных изменений пять веков, но и перешагнул в электронный дизайн. Его популяризации в новое время послужили публикация листов Letraset с образцами Lorem Ipsum в 60-х годах и, в более недавнее время, программы электронной вёрстки типа Aldus PageMaker, в шаблонах которых используется Lorem Ipsum.

Всем пока!

Увидимся!

# Литература

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

Yihui Xie. bookdown: Authoring Books and Technical Documents with R Markdown, 2023. URL https://CRAN.R-project.org/package=bookdown. R package version 0.35.