

Bookdown - Author technical documents

TC World India 2020

Saurav Ghosh

2020-03-05

whoami

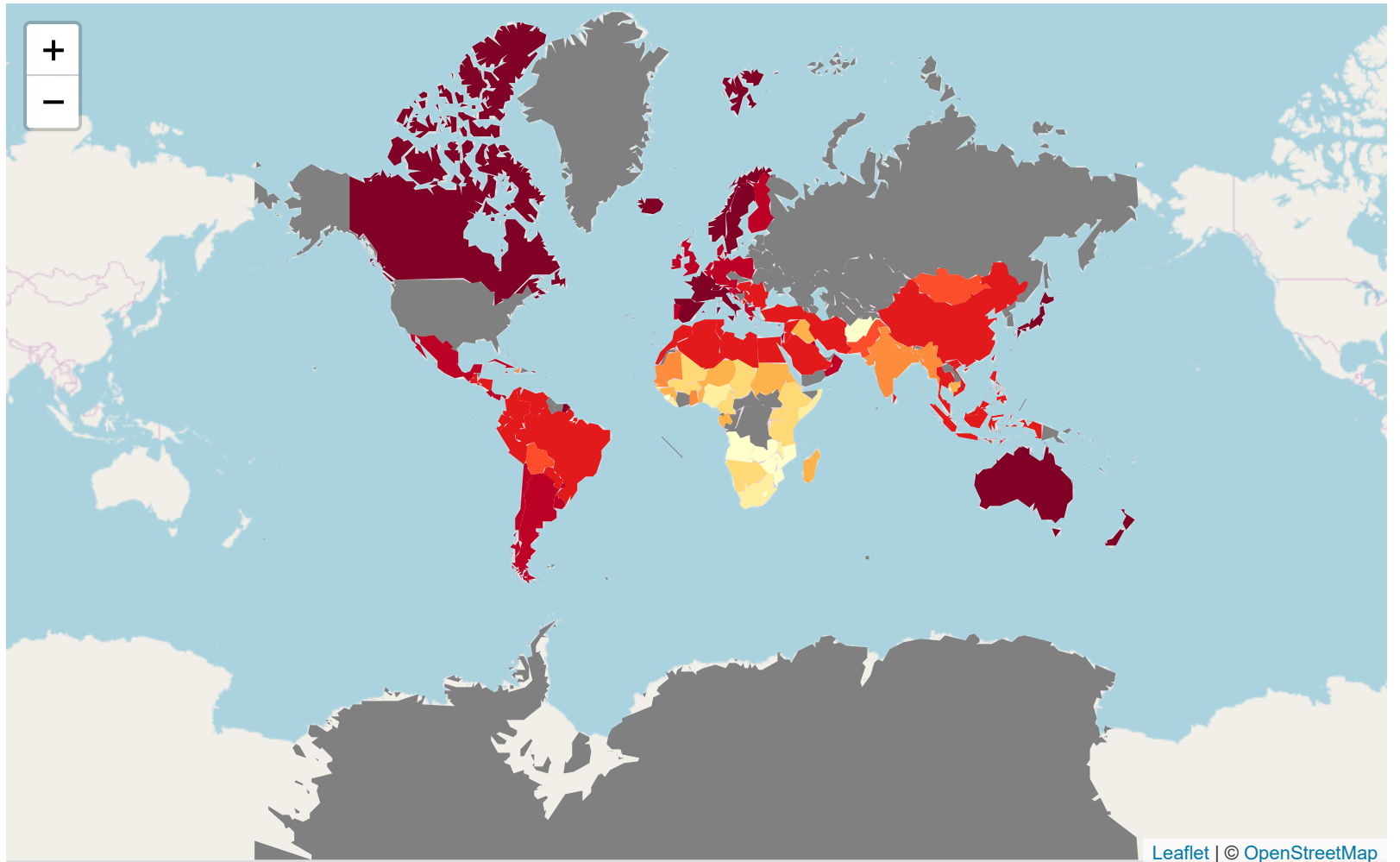
- I am a Content and community manager at Adobe, Bangalore. I look after content and community initiatives for Adobe's server and eLearning suite of products.
- I am interested R stats, data science, NLP, Text analytics, and predictive modeling of text. I am a founder member of Bengaluru R Users' Group (BRUG).
- Get in touch with me!
 - [GitHub repo of this session](#)
 - [Twitter](#)
 - [LinkedIn](#)



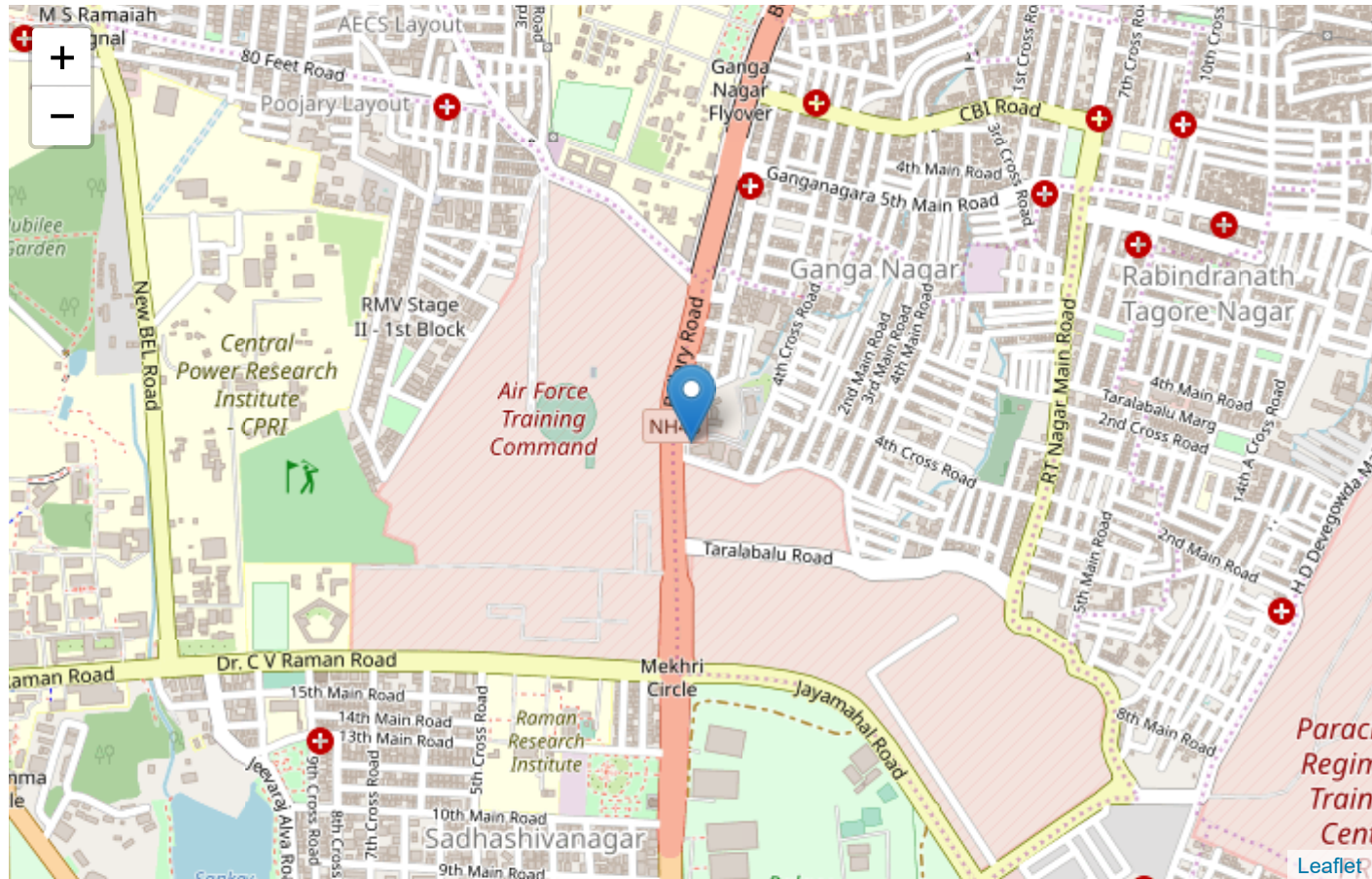
What is bookdown

- An open-source package to write books and scientific documents with R Markdown.
- Can handle multiple outputs- PDF, LaTeX, HTML, EPUB, and Word.
- Supports dynamic graphics and interactive applications (HTML widgets, d3js, plotly, etc.).
- Supports a wide range of languages: R, C/C++, Python, Fortran, Julia, Shell scripts, and SQL, etc.
- Can be published to GitHub, Netlify, or any web server or hosting service.
- Automated CI/CD pipelining and deployment, for example, Travis CI or Netlify.

Maps



Maps...



Interactive tables

Show entries

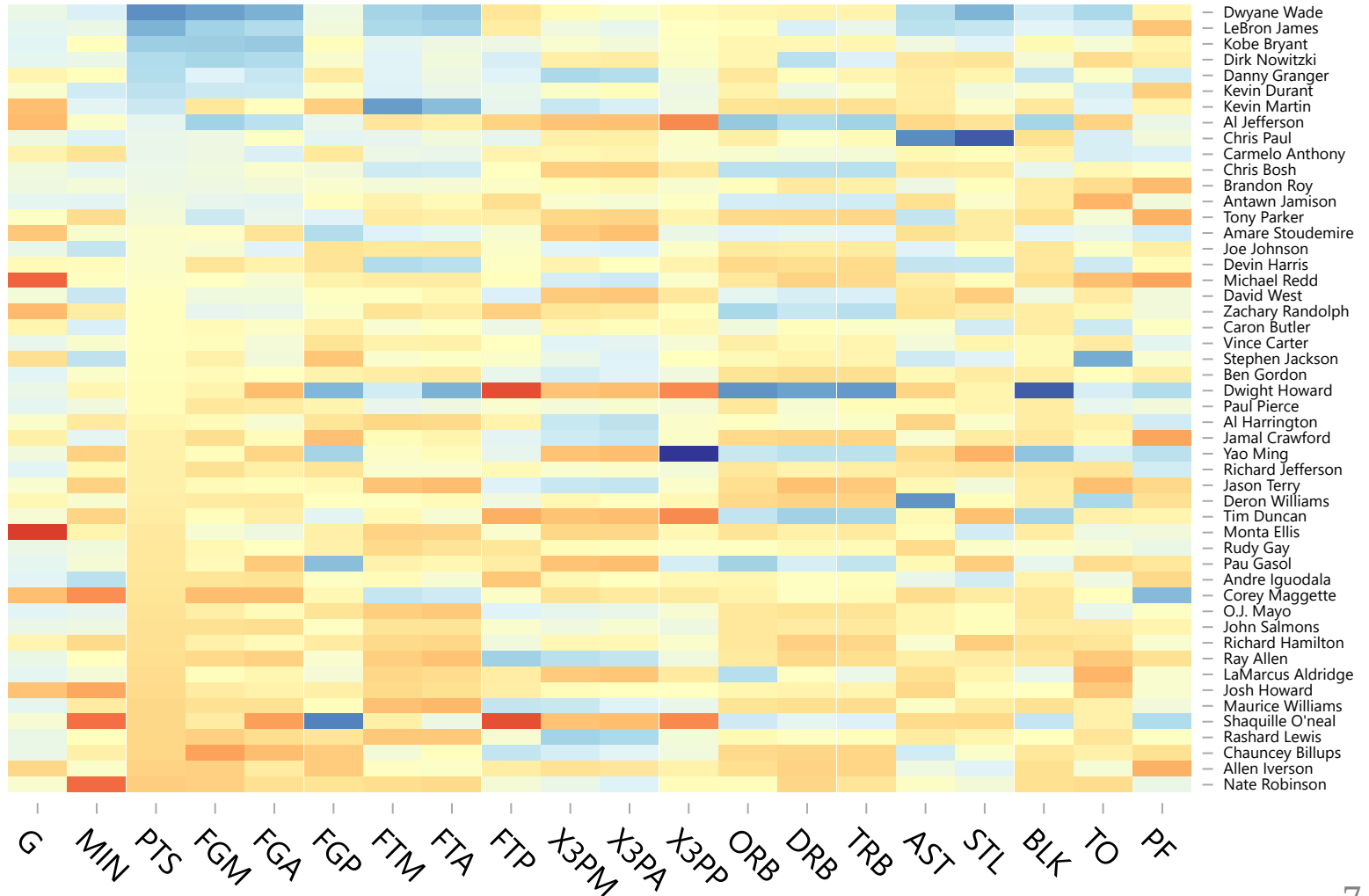
Search:

	carat ⬆	cut ⬆	color ⬆	clarity ⬆	depth ⬆	table ⬆
1	0.23	Ideal	E	SI2	61.5	55
2	0.21	Premium	E	SI1	59.8	61
3	0.23	Good	E	VS1	56.9	65
4	0.29	Premium	I	VS2	62.4	58
5	0.31	Good	J	SI2	63.3	58

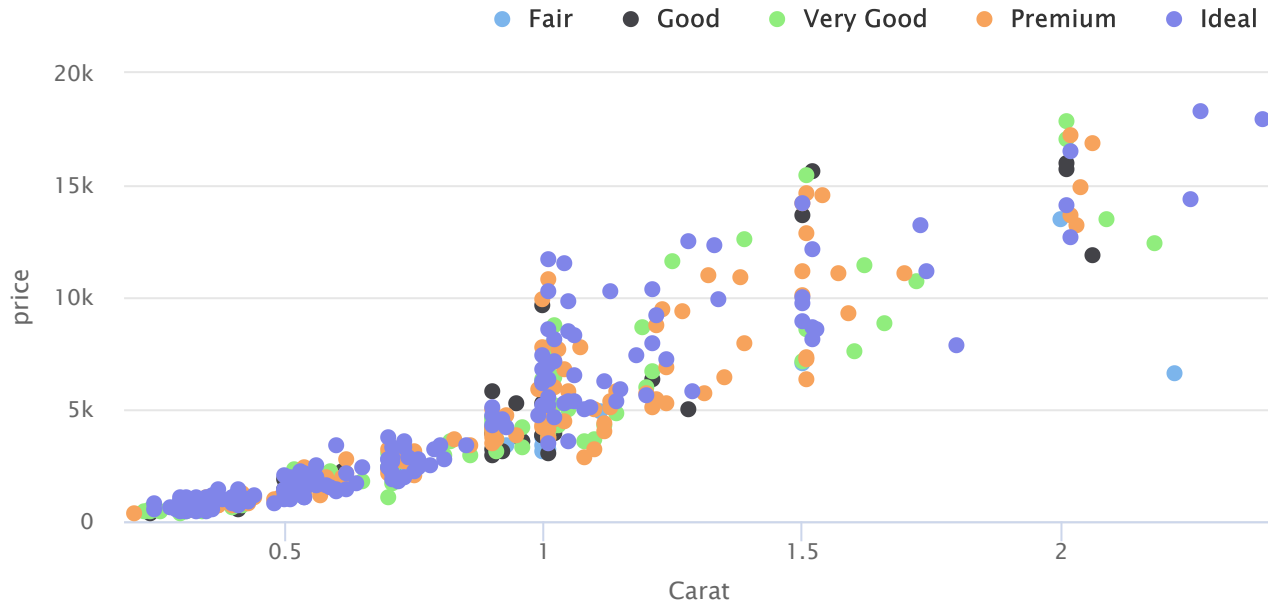
Showing 1 to 5 of 50 entries

Previous 2 3 4 5 ... 10 Next

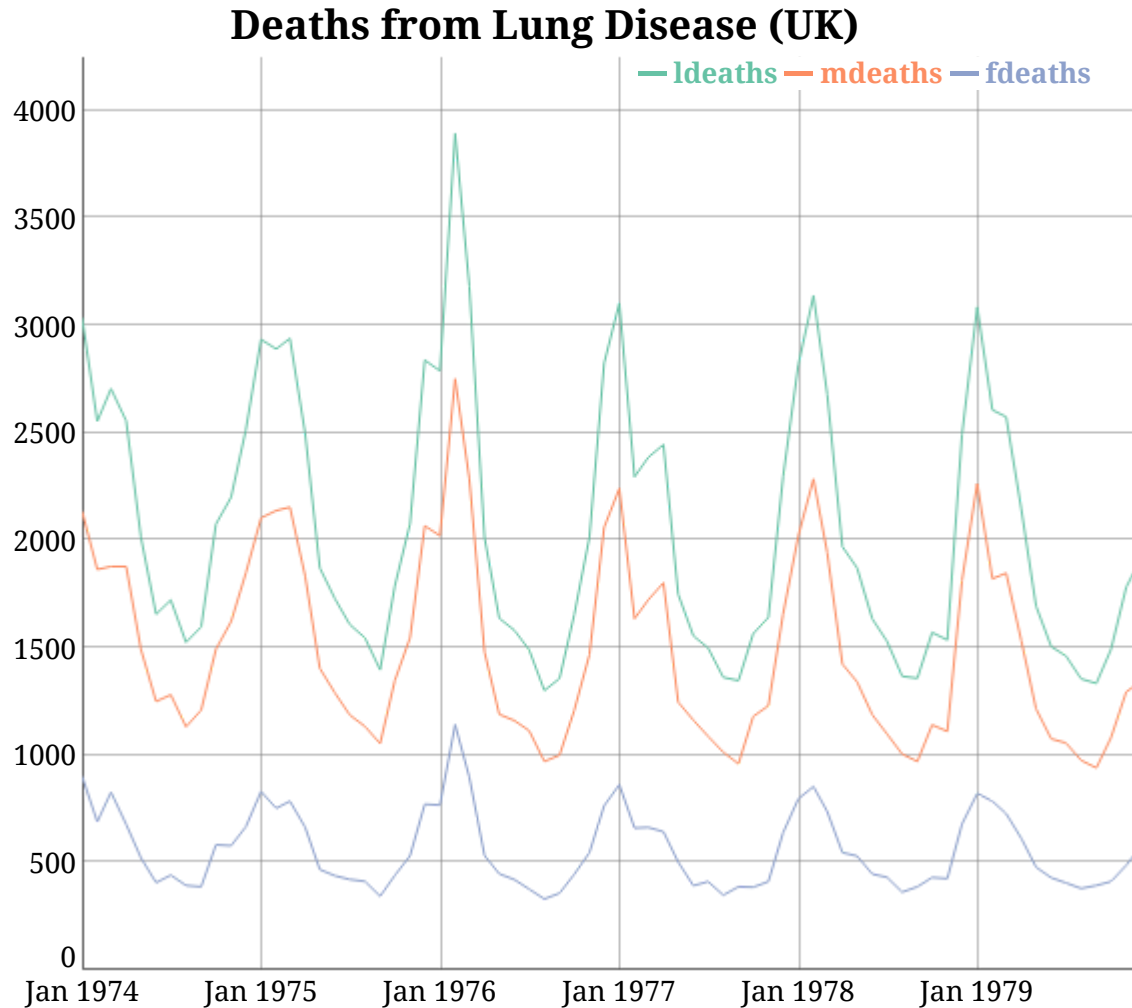
Interactive heatmaps



Interactive scatter plot



Interactive time series



Caption a table

Diamonds data set

carat	cut	color	clarity	depth	table	price	x	y	z
0.23	Ideal	E	SI2	61.5	55	326	3.95	3.98	2.43
0.21	Premium	E	SI1	59.8	61	326	3.89	3.84	2.31
0.23	Good	E	VS1	56.9	65	327	4.05	4.07	2.31
0.29	Premium	I	VS2	62.4	58	334	4.20	4.23	2.63
0.31	Good	J	SI2	63.3	58	335	4.34	4.35	2.75
0.24	Very Good	J	VVS2	62.8	57	336	3.94	3.96	2.48
0.24	Very Good	I	VVS1	62.3	57	336	3.95	3.98	2.47
0.26	Very Good	H	SI1	61.9	55	337	4.07	4.11	2.53
0.22	Fair	E	VS2	65.1	61	337	3.87	3.78	2.49
0.23	Very Good	H	VS1	59.4	61	338	4.00	4.05	2.39

Usage

- A typical **bookdown** book contains multiple chapters, and one chapter lives in one R Markdown file, with the filename extension `.Rmd`.
- Each R Markdown file must start immediately with the chapter title using the first-level heading, e.g., `# Chapter Title`.
- All R Markdown files must be encoded in **UTF-8**.

Installation pre-requisites

Download the latest versions. Download **R** and the free version of **R Studio Desktop**.

- R
- R Studio

R is a programming language and free software environment for statistical computing and graphics supported by the R Foundation for Statistical Computing. The R language is widely used among statisticians and data miners for developing statistical software and data analysis.

R programming language

RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, and a variety of robust tools for plotting, viewing history, debugging and managing your workspace.

Create a Bookdown project

File>New Project>New Directory>Book Project using bookdown

index.Rmd

- YAML file.
- Equivalent to `index.html`
- Default index file when you view the finished output

```
---
title: "Bookdown demo"
author: "Saurav Ghosh"
date: "2020-03-05"
site: bookdown::bookdown_site
documentclass: book
bibliography: [book.bib, packages.bib]
biblio-style: apalike
link-citations: yes
description: "Brief description....."
---
```

Numbered Chapters (default)

index.Rmd

```
# Prerequisites  
This is a _sample_ book written
```

01-intro.Rmd

```
# Introduction  
Blah blah blah.
```

02-literature.Rmd

```
# Literature  
Here is a review of existing met
```

Chapter 1 Prerequisites

This is a *sample* book written in **Markdown**.

Chapter 2 Introduction

Blah blah blah.

Chapter 3 Literature

Here is a review of existing methods.

Un-numbered Chapters

index.Rmd

```
# Prerequisites {-}  
This is a _sample_ book written
```

01-intro.Rmd

```
# Introduction  
Blah blah blah.
```

02-literature.Rmd

```
# Literature  
Here is a review of existing met
```

Prerequisites

This is a *sample* book written in **Markdown**.

Chapter 1 Introduction

Blah blah blah.

Chapter 2 Literature

Here is a review of existing methods.

Label & Cross-Reference Chapters/Subchapters

index.Rmd

```
# Prerequisites {-#pre}  
This is a _sample_ book written
```

01-intro.Rmd

```
# Introduction {#intro}  
Next we review the [literature] (
```

02-literature.Rmd

```
# Literature {#lit}  
Following Chapter \@ref(intro),.
```

Prerequisites

This is a *sample* book written in **Markdown**.

Chapter 1 Introduction

Next we review the **literature**...

Chapter 2 Literature

Following Chapter **1**,...

Chapters and Sub-chapters

index.Rmd

```
# Prerequisites  
This is a _sample_ book written
```

01-intro.Rmd

```
# Introduction  
Blah blah blah.
```

02-literature.Rmd

```
# Literature  
Here is a review of existing met
```

A Minimal Book Example

1 Pre-requisites

1.1 The venue

2 Introduction

3 Literature

4 Methods

5 Applications

5.1 Example one

5.2 Example two

6 Final Words

References

Published with bookdown

Parts

index.Rmd

```
# Prerequisites {-}
```

01-intro.Rmd

```
# (PART) Part one {-}  
# Introduction
```

02-literature.Rmd

```
# Literature
```

03-methods.Rmd

```
# (PART) Part two {-}  
# Methods
```

A Minimal Book Example

[Prerequisites](#)

I Part One

1 Introduction

2 Literature

II Part Two

3 Methods

4 Applications

4.1 Example one

4.2 Example two

5 Final Words

References

Published with bookdown

Un-numbered parts

index.Rmd

```
# Prerequisites {-}
```

01-intro.Rmd

```
# (PART\*) Part one {-}  
# Introduction
```

02-literature.Rmd

```
# Literature
```

03-methods.Rmd

```
# (PART\*) Part two {-}  
# Methods
```

A Minimal Book Example

[Prerequisites](#)

Part One

1 Introduction

2 Literature

Part Two

3 Methods

4 Applications

4.1 Example one

4.2 Example two

5 Final Words

References

Published with bookdown

TOC Sidebar

```
bookdown::gitbook:
  css: style.css
  config:
    toc:
      collapse: section # section, subsection, none
      scroll_highlight: yes
      before: |
        <li><a href="https://tcworld-india.com/">TC World India</a><,
      after: |
        <li><a href="https://github.com/sauravg94" target="blank">Cor
download: ["pdf", "epub"]
```

Recap

- Parts with # (PART) My unique part {-}
- Un-numbered parts with # (PART*) My unique part {-}
- Appendix with # (APPENDIX) My appendix {-}
- Collapsing TOC with the _output.yml