

Composing your prose with markdown

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Text and headers

- Text can be plain text or decorated as **italic** or ****bold****
- Headers use #s
 - # Header 1
 - ## Header 2
 - ### Header 3

Numbered sections

```
1 ---
2 title: "My First R Markdown doc"
3 author: "Mine Cetinkaya-Rundel"
4 date: "1/23/2018"
5 output:
6   html_document:
7     number_sections: true
8 ---
9
10 # Section 1
11
12 ## Section 1.1
13
14 ## Section 1.2
15
16 ### Section 1.2.1
17
18 ### Section 1.2.2
```

Files Plots Packages Help Viewer

My First R Markdown doc

Mine Cetinkaya-Rundel

1/23/2018

1 Section 1

1.1 Section 1.1

1.2 Section 1.2

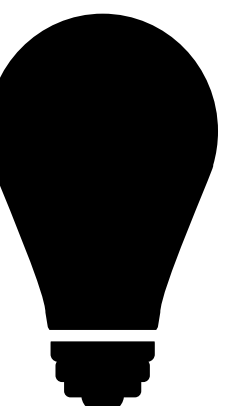
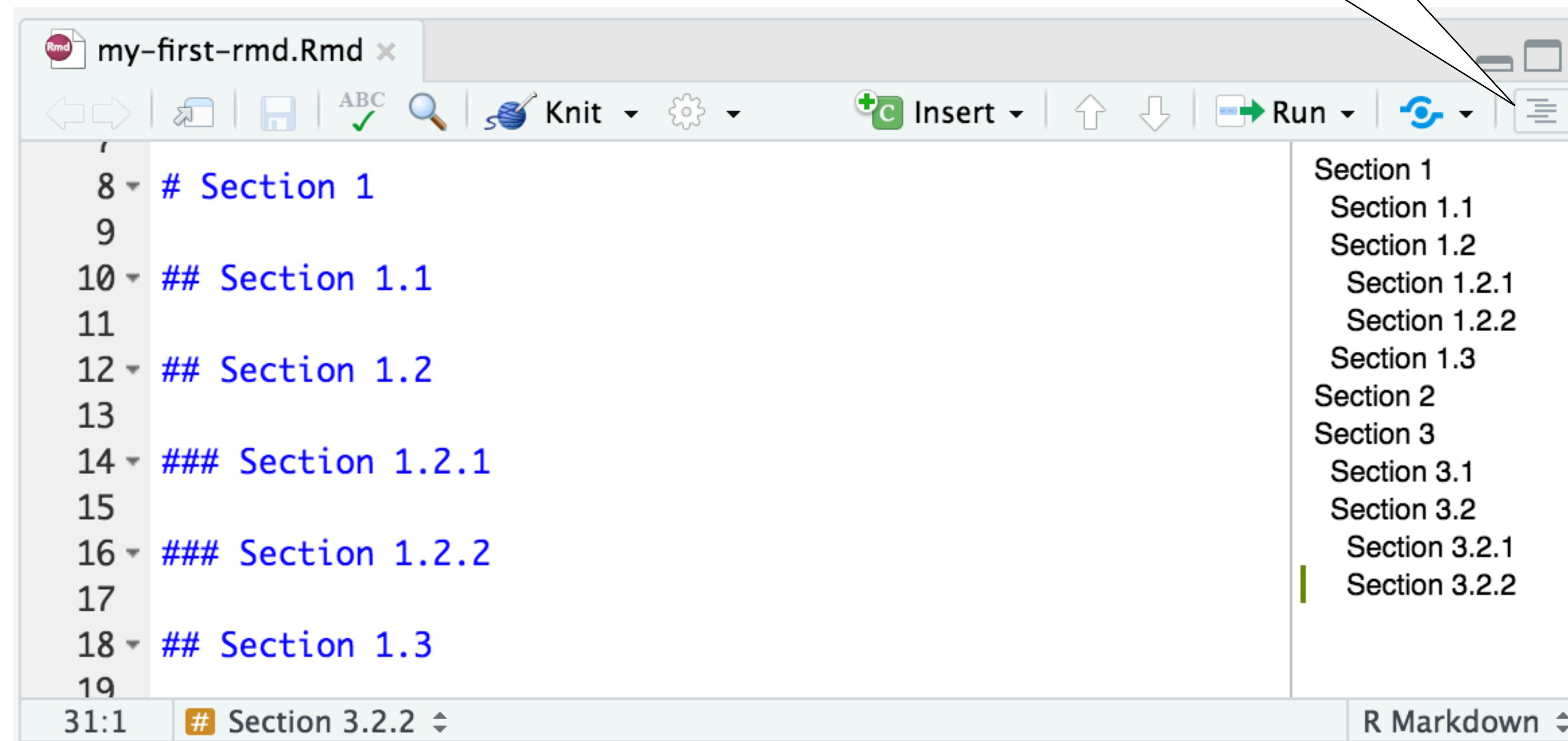
1.2.1 Section 1.2.1

1.2.2 Section 1.2.2



Tips

Show / hide
document
outline



Links

- Links can be plain http address or they can add a link to a phrase:
 - <http://rmarkdown.rstudio.com/>
 - [R Markdown website](<http://rmarkdown.rstudio.com/>)

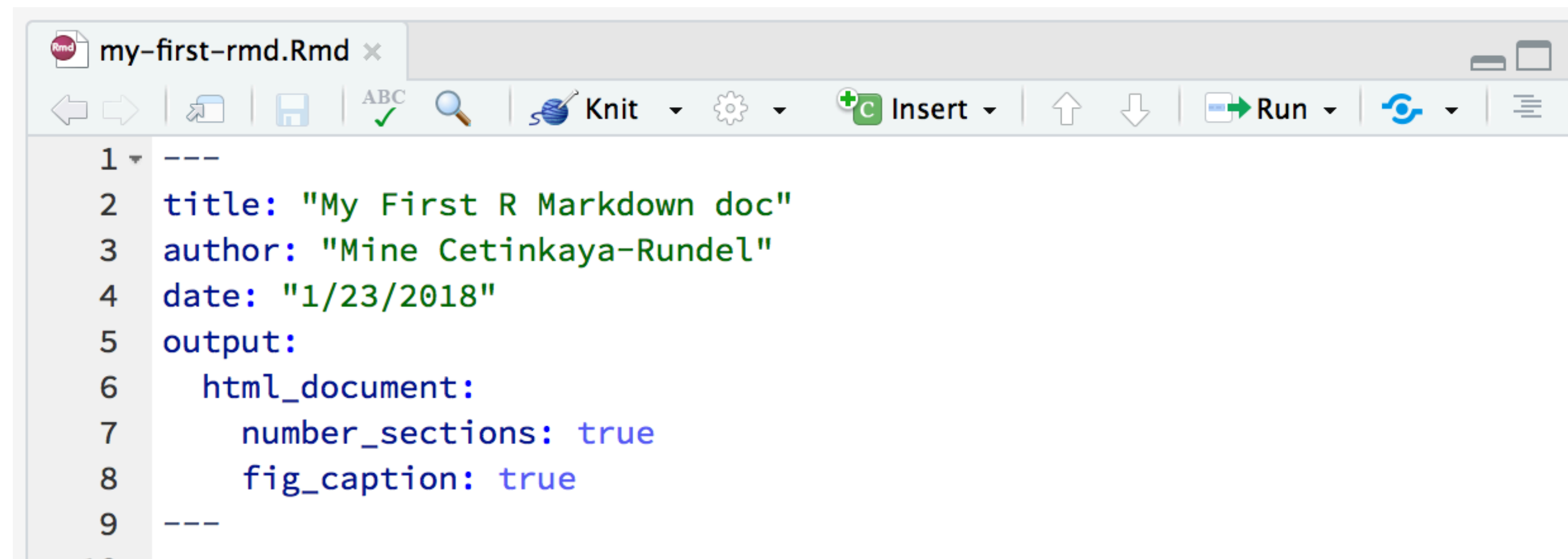


Images

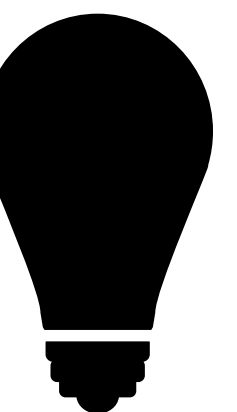
- Including an image is very similar to hyperlinking
- Images can be on the web:
`![RStudio logo](https://www.rstudio.com/wp-content/uploads/2014/04/rmarkdown.png)`
- Or they can be locally stored:
`![RStudio logo](img/rmarkdown.png)`

Tips

- To improve the accessibility of your document, always add `alt` text to you images.
- To print the `alt` text underneath the image as a caption, use `fig_caption: true` in the YAML, and make sure there is a line break before the figure call.



```
1 ---
2 title: "My First R Markdown doc"
3 author: "Mine Cetinkaya-Rundel"
4 date: "1/23/2018"
5 output:
6   html_document:
7     number_sections: true
8     fig_caption: true
9 ---
```



Reference style links and images

- Links
 - A `[linked phrase][id]`
 - At the bottom of the document: `[id]: http://example.com/ "Title"`
- Images
 - `![alt text][id]`
 - At the bottom of the document: `[id]: figures/img.png "Title"`
- Useful if you'll be linking to the same target/image multiple times throughout the document



Math text

- If you already know some LaTeX, you're good to go
- Equations can be inline: $\bar{x} \sim N(\mu, \frac{\sigma}{\sqrt{n}})$
- And equations can be centered in a new line:

$$\bar{x} \sim N(\mu, \frac{\sigma}{\sqrt{n}})$$

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$$\bar{x} \sim N(\mu, \frac{\sigma}{\sqrt{n}})$$

Tables

- Tables are often a bit of a pain...
- Dashes separate the header row from content cells, and pipes separate the columns
- Colons can be used to align columns

Column A	Column B	Column C
-----	:-----:	-----:
left aligned text	center aligned text	right aligned text



Column A	Column B	Column C
left aligned text	center aligned text	right aligned text

Your turn

- Go back to `my-first-rmd.Rmd`.
- Recreate the following table on the right. Hint: HTML code (mostly) works in markdown.
- You can also use a helper tool like https://www.tablesgenerator.com/markdown_tables.

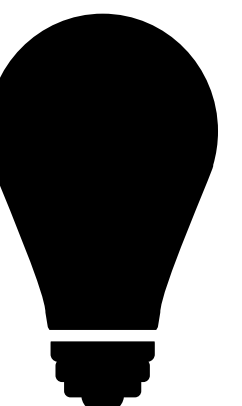
Roses	Violets	Markdown	R Markdown
are	are	is	is
Red	Blue	sweet	too

5_m 00_s



Tips

- The outer pipes (|) on a Markdown table are optional.
- You don't need to make the raw Markdown line up prettily.
- You can use inline Markdown within tables.



Markdown Quick Reference

In RStudio: Help ➡ Markdown Quick Reference

Markdown Quick Reference

R Markdown is an easy-to-write plain text format for creating dynamic documents and reports.
See [Using R Markdown](#) to learn more.

Emphasis

```
*italic*    **bold**  
_italic_    __bold__
```

Headers

```
# Header 1  
## Header 2  
### Header 3
```

Lists

Unordered List

```
* Item 1  
* Item 2  
  + Item 2a  
  + Item 2b
```



Analyze. Share. Reproduce. and do it all

with R Markdown

Your data tells a joke story. Tell it with R Markdown. Turn your analyses into **high quality** documents, reports, presentations and dashboards – and don't forget to drink some H₂O while you do that.¹

R Markdown documents are fully reproducible. Use a productive [notebook interface](#)² to weave together narrative text and code to produce *elegantly formatted* output. Use multiple languages including

- R
- Python

and

- SQL

Do you need still need convincing to use R Markdown? See what a friend once said:

I used to use Sweave, and get terrible headaches. Now I use R Markdown, and life is much more pleasant.

1. Or coffee, whatever floats your ☕.↩

2. This link should point to http://rmarkdown.rstudio.com/r_notebooks.html.↩



10_m 00_s



Your turn

Open `analyze-share-repro.Rmd` and add styling to the text to recreate the look on the left.

Done early? See the next slide for **stretch goals**.

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and do it all

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Your data tells a ~~joke~~ story. Tell it with R Markdown. Turn your analyses into **high quality** documents, reports, presentations and dashboards – and don't forget to drink some H₂O while you do that.¹

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Your turn

Stretch goals:

- (1) Change the theme
- (2) Use a Font Awesome icon for “boat” in the footnote. See <https://fontawesome.com/> for more on Font Awesome.
- (3) Add R Markdown logo from <https://www.rstudio.com/about/logos/> and place it inline with text.

