

RMarkdown

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What is R Markdown?

Markdown = Language for text formatting

- ▶ Markdown
- ▶ an easy to write plain text format for creating dynamic documents and reports
- ▶ contains “normal” text and code chunks (e.g. R, but Python, SQL, and more also possible)
- ▶ RMD -> MD -> html, Docx or PDF
- ▶ Formatting documents outside the analysis

Creating a document that can contain both text and code:

- ▶ When creating (“knitting”), the code is executed and displayed together with the description.
- ▶ Only a document without warnings/errors can be knitted.
- ▶ Possible to export a Word, HTML or PDF file.

Approach

1. Open RStudio -> File -> New File -> R Markdown
2. Enter a title for the document (optionally enter an author)
3. Choose an output format
4. YAML Headline: Final choice of your output format
5. Write the markdown
6. Embed Code
7. Rendering Output
 - ▶ RStudio: “Knit” (Ctrl+Shift+K)
 - ▶ Command line: `rmarkdown:: render(“input.Rmd”)`

Installation

Before you start, make sure you have installed the rmarkdown package

```
install.package("rmarkdown")
```

Choose the output format

- ▶ You can choose between HTML, PDF and Docx(Word)
 - ▶ **HTML** is recommended, since everybody can read it
- ▶ You can always change your output format, in the YAML Header

YAML Header

Example

```
title: "Exempld_rmardown"  
author: "rmarkdown_group"  
date "3 4 2020"  
output: html_document
```

Output types

Type	Format	Option in YAML Header
Website	HTML	output: html_document
Document	PDF	output: pdf_document
Document (Word)	RTF	output: word_document
Presentation (beamer)	PDF	output: beamer_presentation
Presentation (ioslides)	HTML	output: ioslides_presentation

Embed your code

inline code

The mean speed of cars is (``r mean(cars$speed)``) 15.4.

code chunk

```
{r cars, echo=TRUE}
```

```
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