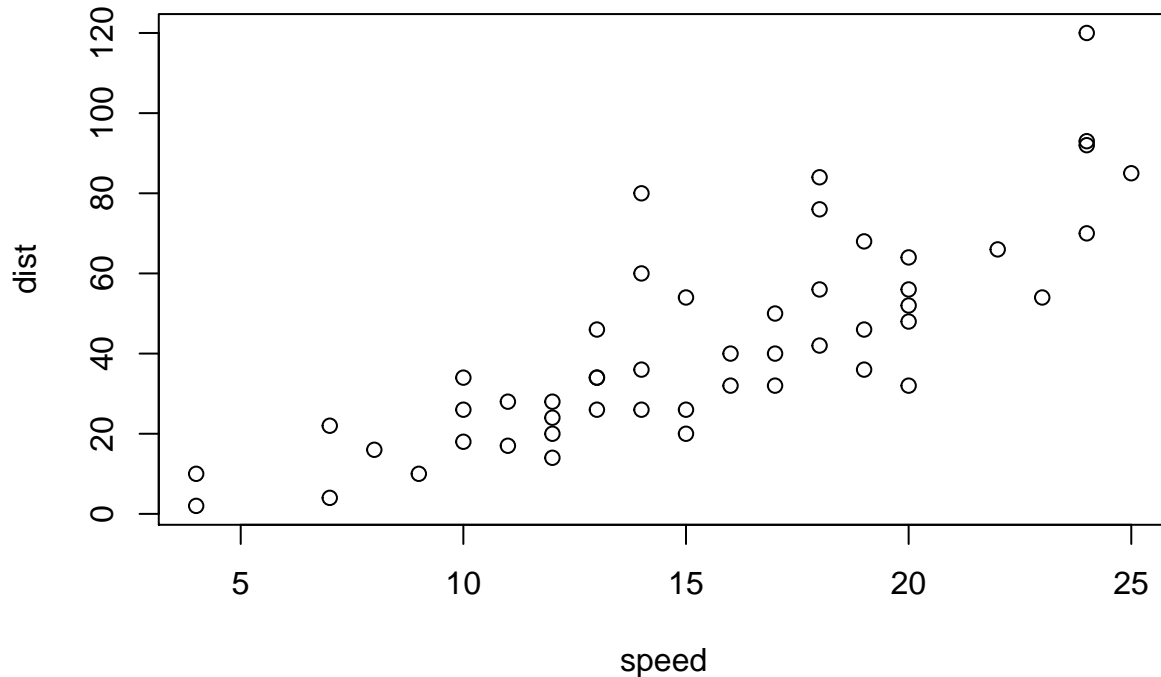


# R Markdown Example

*Hadrien*

This is an R Markdown Notebook. When you execute code within the notebook, the results appear beneath the code.

Try executing this chunk by clicking the *Run* button within the chunk or by placing your cursor inside it and pressing *Cmd+Shift+Enter*.



Add a new chunk by clicking the *Insert Chunk* button on the toolbar or by pressing *Cmd+Option+I*.

When you save the notebook, an HTML file containing the code and output will be saved alongside it (click the *Preview* button or press *Cmd+Shift+K* to preview the HTML file).

The preview shows you a rendered HTML copy of the contents of the editor. Consequently, unlike *Knit*, *Preview* does not run any R code chunks. Instead, the output of the chunk when it was last run in the editor is displayed.

## What is Markdown?

“Markdown is a lightweight markup language with plain text formatting syntax. It is **designed so that it can be converted to HTML and many other formats** using a tool by the same name.[8] Markdown is often used to format readme files, for writing messages in online discussion forums, and to create rich text using a plain text editor. As the initial description of Markdown contained ambiguities and unanswered questions, many implementations and extensions of Markdown appeared over the years to answer these issues. . . . the goal of enabling people”to write using an easy-to-read, easy-to-write plain text format, and optionally convert it to structurally valid XHTML (or HTML). . . . The key design goal is **readability**. . . ”  
wikipedia

## R Markdown Basics

RMD files contain 3 important types of content:

1. An (optional) YAML header surrounded by `---`.
2. Chunks of code surrounded by `"`"`.
3. Text mixed with simple text formatting

(R For Data Science, 424)

## Useful Syntax

*italics*

**bold**

superscript<sup>2</sup>

~~strikethrough~~

[hyperlink](#)

## header 1

## header 2

## header 3

ect

inline equation:  $A = \pi * r^2$



image:

Video

block quote

Insert deep quote here

- unordered list
- item 2
  - sub-item 1

- sub-item 2
- 1. ordered list
- 2. item 2
  - sub-item 1
  - sub-item 2

## What's the YAML header?

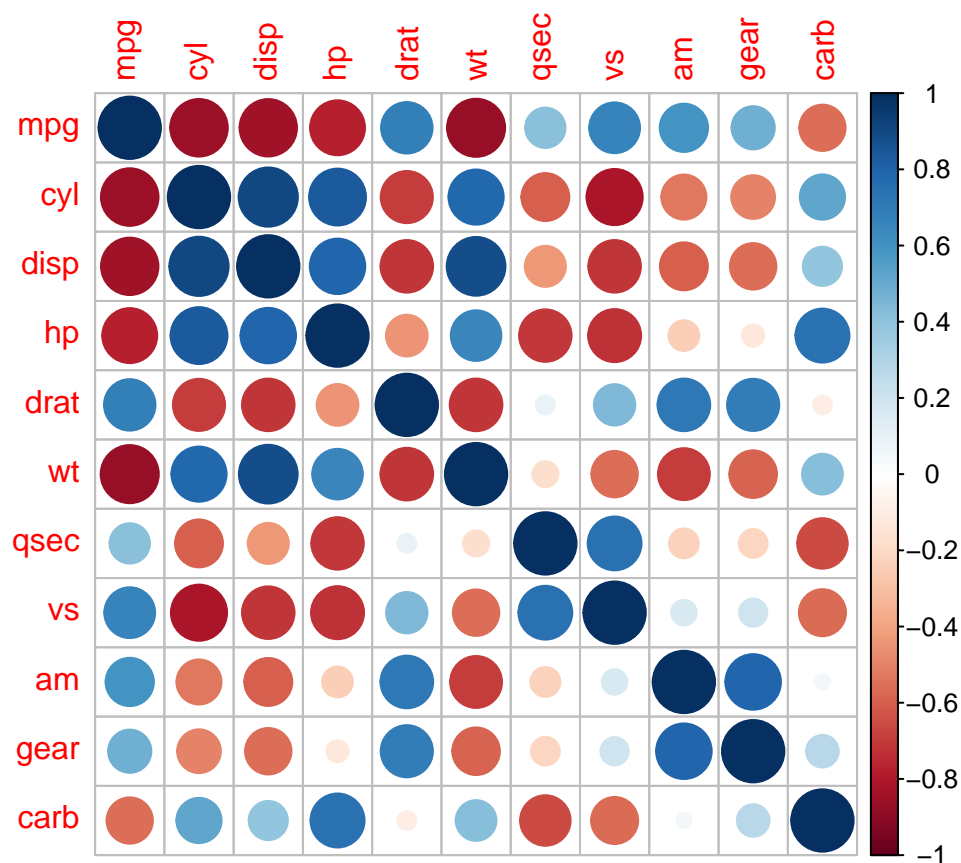
“What It Is: YAML is a human friendly data serialization standard for all programming languages.”

Write a YAML header that explains what type of document to build from your R Markdown file.

## Why use rmarkdown?

Use RMarkdown for all your R project for readability and reproducibility. A lot of packages leverage markdown syntax to create things like interactive dashboards, web applications, websites, and more.

## Code chunk options



```
# suppress warning messages from being printed
library(ggplot2)
```

```
# whether to evaluate the code chunk or not
corrplot(M, method="circle")
```

## E-mail options

```
# Set e-mail subject
rmarkdown::output_metadata$set(rsc_email_subject = "My awesome e-mail subject")

# Construct e-mail subject
subject <- rmarkdown::output_metadata$get("rsc_email_subject") # retrieve current email subject
difference <- (1200-1000)/1000 # some metric
rmarkdown::output_metadata$set(rsc_email_subject = paste0(subject, " - ", difference*100, "%", " change!"))

# Suppress e-mail
if (difference < .1) {
  rmarkdown::output_metadata$set(rsc_suppress_email_scheduled = TRUE)
}
```

## Output files

Your RMD doc may contain some data you'd like to share along with the report. With RStudio Connect, you can make output files available to download via a link or be sent via e-mail.

```
# Create data
set.seed(123)
data1 <- tibble(Month= format(ISOdate(2018,1:12,1),"%B"), # month vector
                 Policies = sample(500:1000, 12, replace = TRUE))

data2 <- tibble(Month= format(ISOdate(2018,1:12,1),"%B"), # month vector
                 NBLR = sample(.5:1.1, 12, replace = TRUE))

# Write data frames to CSV
write.csv(data1, file = "data1.csv")
write.csv(data2, file = "data2.csv")

# Attach output files to e-mail
rmarkdown::output_metadata$set(rsc_email_attachments = list("data1.csv", "data2.csv"))
```

You can also link to your output data files in your RMD report: download data

## Editing the e-mail body

```
# rmarkdown::output_metadata$set(rsc_email_body_text = "simple text")
rmarkdown::output_metadata$set(rsc_email_body_html = "html text")
```