Data Visualization with R
R Markdown tutorial

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University of Washington - Fall 2024

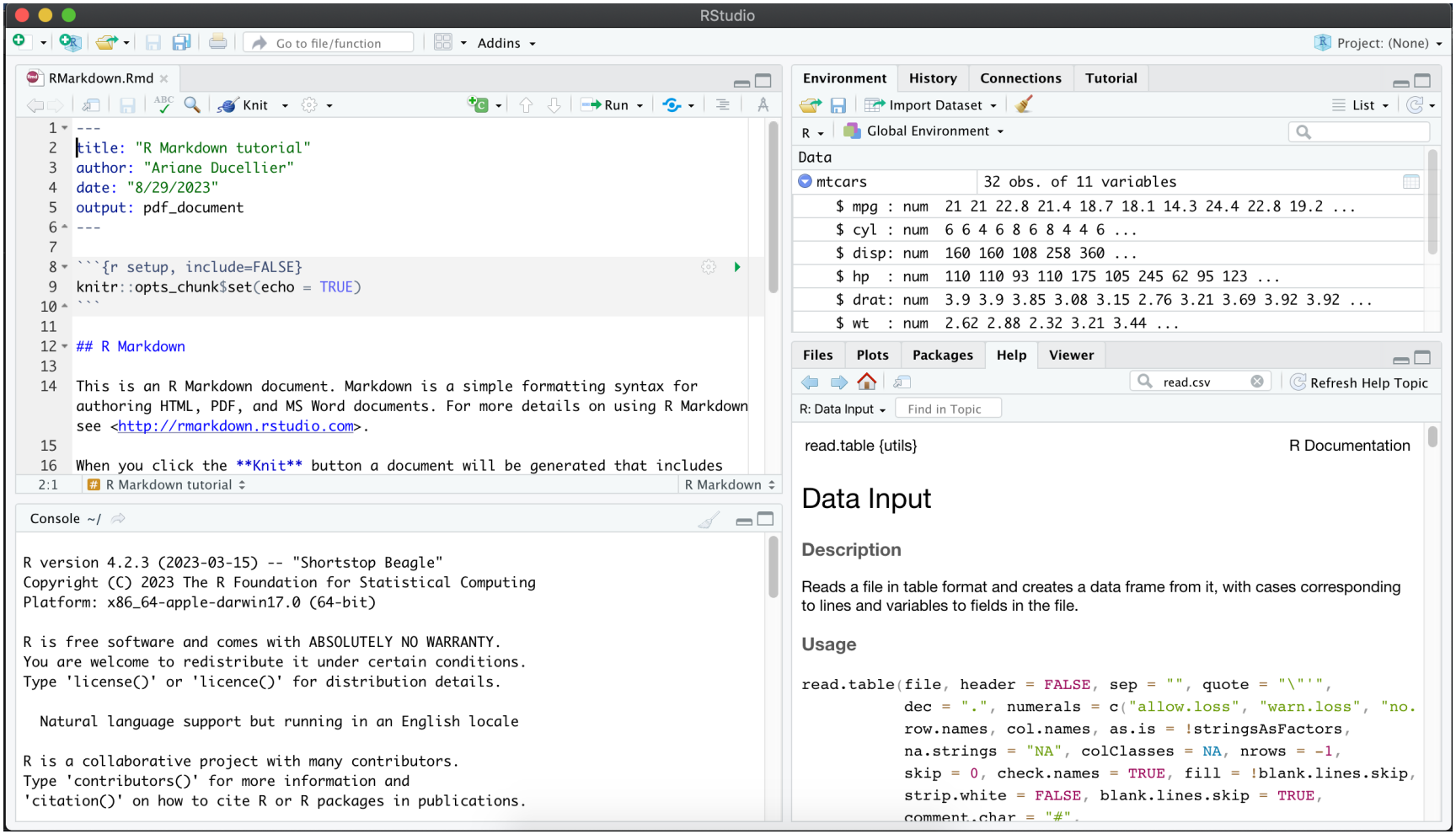
Installing R and RStudio

Install the latest version of R from the CRAN website:
https://cran.r-project.org/

Install the latest version of RStudio from
https://posit.co/download/rstudio-desktop/

Open RStudio and go to File > New File > R Markdown

RStudio interface



Rmd file structure

YAML header:

```
---
title: "R Markdown tutorial"
author: "Ariane Ducellier"
date: "8/29/2023"
output: pdf_document
---
```

R code chunks:

````
```{r cars}
summary(cars)
```
````

Markdown text:

```
## R Markdown

This is an R Markdown document.
```

Main options for R chunk options

````
```{r chunk_name, options}
R code
```
````

- `include = FALSE` - No code and no results printed in the finished file.
- `echo = FALSE` - No code.
- `message = FALSE` - No messages generated by the code.
- `warning = FALSE` - No warnings generated by the code.
- `fig.cap = "..."` - Caption for graphical results.

Basic Markdown syntax

```
_Italic text_
**Bold text**
# Header one
## Header two
### Header three
[R Markdown](https://rmarkdown.rstudio.com)
![RStudio interface](RMarkdown.png)
> "A quote"
* List item 1
* List item 2
1. Ordered list item 1
2. Ordered list item 2
Line 1 followed by two spaces
Line 2
```

More RMarkdown

Inline code:

```
Here is the result: `r result`.
```

Printing tables:

````
```{r ktable, results='asis'}
library(knitr)
kable(mtcars[1:5], caption="A knitr table"
```
````

More yaml options

Table of contents:

```
output:
  pdf_document
    toc: true
```

Dashboards:

```
output:
  flexdashboard::flex_dashboard:
    orientation: columns
```

More on R Markdown

Markdown tutorial: https://www.markdowntutorial.com/

R Markdown tutorial:
https://rmarkdown.rstudio.com/lesson-1.html

R Markdown guide: https://bookdown.org/yihui/rmarkdown/

In RStudio, go to:

- Help > Markdown Quick Reference
- Help > Cheatsheets > R Markdown Cheat Sheet