

# Intro to Quarto

The background of the image is a repeating pattern of teal-colored hexagons of varying shades, creating a textured, honeycomb-like effect. The hexagons are outlined in a lighter shade of teal, and the overall color palette is monochromatic, ranging from light to dark teal.

# Welcome!

# Housekeeping!

- Be kind and curious!
- Slack and Zoom chat
- Ask questions

# Schedule (Day 1)

Time	Activity
10:30–11:30	Welcome + Intro to Quarto
11:30–12:30	Creating basic websites
12:30–13:30	<i>Break</i>
13:00–15:00	Advanced website features

# Schedule (Day 2)

Time	Activity
10:30–11:00	Publishing
11:00–12:30	Customization and branding
12:30–13:30	<i>Break</i>
13:00–15:00	Interactivity

# About me

## Andrew Heiss

🌐 [andrewheiss.com](https://andrewheiss.com) 🦋 [@andrew.heiss.phd](https://twitter.com/andrew.heiss.phd)

🗨️ [@andrewheiss](https://twitter.com/andrewheiss) 📌 [andrewheiss](https://www.linkedin.com/in/andrewheiss)

- Assistant professor of public policy, Georgia State University
- Data visualization, statistics, and causal inference



# Meeting you where you are

This course is designed for someone who:

- Knows some R or Python
- Maybe has an idea for a website
- Is relatively new to Quarto
- Wants to customize Quarto output

You'll learn:

- What Quarto is and how to use it
- How to create and publish websites with Quarto
- How to customize Quarto output

# Course structure

## My turn

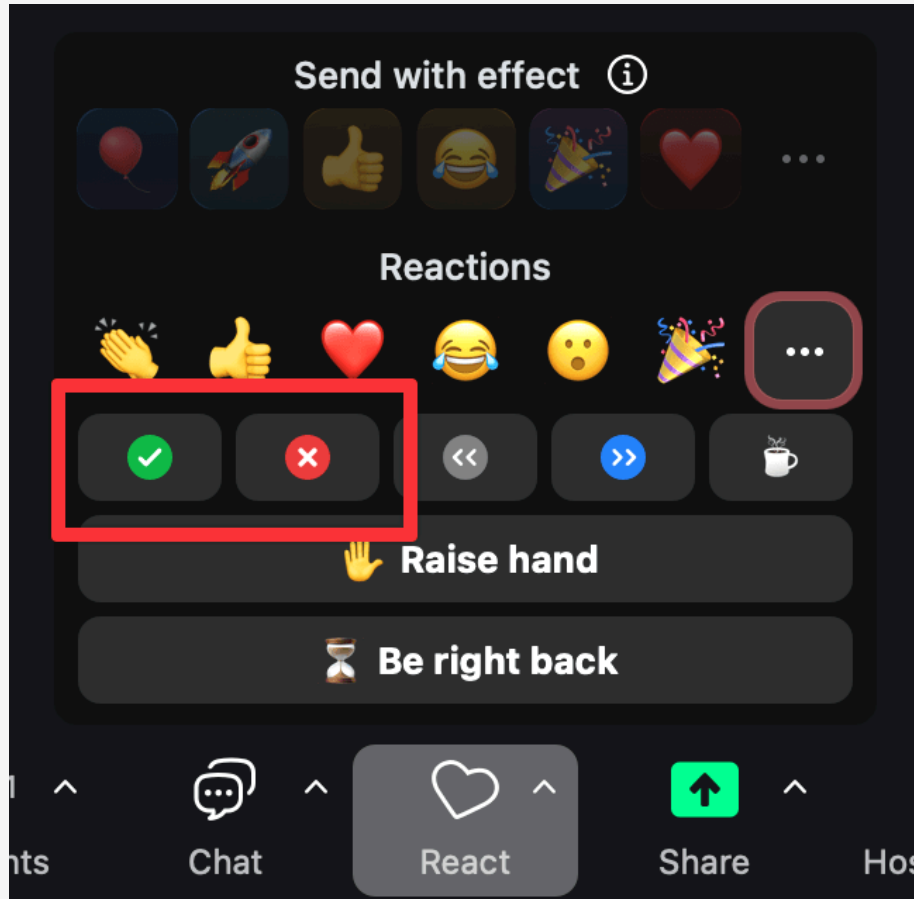
- Lecture segments
- Feel free to just watch, take notes, browse docs, or tinker around with the code

## Your turn



- Exercises for you to do
- Work on your own or with others



# Getting help



## Use Zoom reactions

-  =  
"I'm stuck and need help!"
-  =  
"I finished the exercise"

Ask longer, more detailed questions in Slack

# Your turn

Introduce yourself:

- Name
- Professional affiliation
- On a scale of 1–10, how well do you know...
  - Quarto?
  - R?
  - Python?
  - HTML and CSS?
- What do you hope to get out of this course?

04:00

# Introduction to Quarto

**Quarto is an...**

open-source  
scientific and technical  
publishing system  
built on Pandoc.

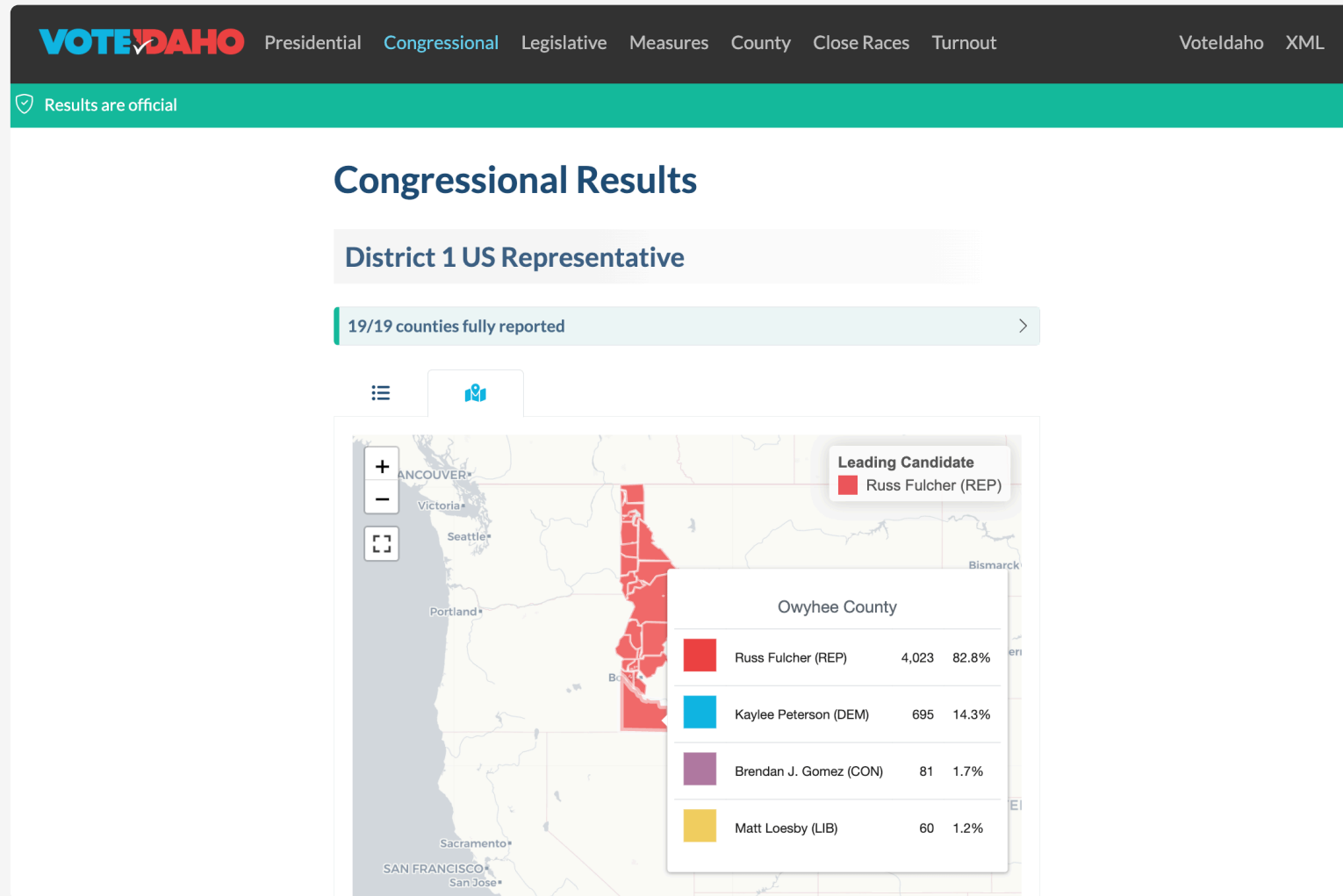
# With Quarto...

...you can **weave** together **narrative** and **code** to produce elegantly formatted output such as documents, web pages, blog posts, books, dashboards, and more.

- Create dynamic content with Python, R, Julia, and Observable
- Edit documents in your favorite editor
- Publish technical content in HTML, PDF, Microsoft Word, and more
- Share content by publishing to the internet

# Display data and results

2024 Idaho election results, by Gabe Osterhout and Andrew Heiss



# Walk through a story

**Council Housing & Neighborhood Income Inequality in Vienna** by Tamara Premrov and Matthias Schnetzer (European Centre for Social Welfare Policy and Research, Austria)



# Publish papers

Navigating Hostility: The Effect of Nonprofit Transparency and Accountability on Donor Preferences in the Face of Shrinking Civic Space

by Suparna Chaudhry, Marc Dotson, and Andrew Heiss

HTML

PDF

Word

Modeling and estimands

We analyze the results using a multilevel Bayesian multinomial model (see the appendix for complete model details). Our experimental data has a natural hierarchical structure, with 3 questions nested inside 12 separate experimental tasks, nested inside each of the 1,016 respondents, which lends itself to multilevel modeling (Jensen et al., 2021). Since it was impossible for every respondent to see every possible combination of treatment conditions, we use a model that allows us to estimate the effects of each treatment condition on the response probabilities. This model is described in the appendix, and we provide a brief overview of its structure here. The model is characterized by the following parameters:  $\mu_{1,j}$ ,  $\mu_{2,j}$ ,  $\mu_{3,j}$  for the three response options, and  $b_{0,j}$  for the respondent-specific intercept. The model is defined by the following equations:

$$\text{Choice}_{ij} \sim \text{Categorical}(\{\mu_{1,j}, \mu_{2,j}, \mu_{3,j}\})$$
$$\{\mu_{1,j}, \mu_{2,j}, \mu_{3,j}\} = (\beta_0 + b_{0,j}) + \beta_{1,2,3} \text{Organization}_{ij} + \beta_{4,5,6} \text{Issue area}_{ij} + \beta_7 \text{Transparency}_{ij} + \beta_8 \text{Accountability}_{ij} + \beta_{9,10} \text{Funding source}_{ij} + \beta_{11,12} \text{Government relationship}_{ij}$$
$$b_{0,j} \sim \mathcal{N}(0, \sigma_0)$$

Priors

$$\beta_{0..12} \sim \mathcal{N}(0, 3)$$
$$\sigma_0 \sim \text{Exponential}(1)$$

Prior for choice-level intercept and coefficients

Prior for between-respondent variability

Table of contents

Introduction

What determines individual donor behavior?

Research design

Sample

Experimental design

Modeling and estimands

Results

Discussion

Conclusion

Statements and declarations

References

Other formats

PDF (hikmah)

Manuscript PDF (hikmah-manuscript)

We do not include any respondent-level covariates beyond the treatment variables. Because this is an experimental design, any statistical confounding is accounted for during the process of randomization and covariates should have no systematic effect on treatment effects. We do not work with the raw results of the multinomial model directly. Given the conjoint design, we instead create a complete balanced grid of all 576 combinations of feature levels (2 transparency  $\times$  2 accountability  $\times$  3 government relationships  $\times$  4 organizations  $\times$  4 issues  $\times$  3 funding) and use the model to calculate predicted probabilities of choice selection for each combination of possible treatment values. We then collapse this set of predicted probabilities into estimated marginal means (EMMs) for specific features of interest while marginalizing or averaging over all other predicted variables (Arel-Bundock et al., 2024; Leeper et al., 2020). This marginalization process allows us to isolate the statistical effect of each feature in isolation. We include a complete table of model results in Table A5, along with a brief illustration of converting from regression



# Share research

## Pandemic Pass? Treaty Derogations and Human Rights Practices During COVID-19 by Suparna Chaudhry, Audrey Comstock, and Andrew Heiss

Pandemic Pass?

Data and replication Analysis Presentations Paper

Data > Download final data

### Download final data

The cleaned data is available in three formats:

- CSV file for any program
- `.rds` file for R (load with `df <- readRDS("weekly_panel.rds")`)
- `.dta` file for Stata (load with `use "weekly_panel.dta"`)

### Weekly data

weekly\_panel.csv

weekly\_panel.rds

weekly\_panel.dta

### Quarterly data

quarterly\_panel.csv

quarterly\_panel.rds

quarterly\_panel.dta

Data details →

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Made with and Quarto  
View the source at GitHub

# Teach classes

**Data Science for the Social Sciences**, Gov 50, Harvard University, taught by Matt Blackwell

**Gov 50**[Syllabus](#)[Schedule](#)[Staff](#)[Materials](#)[Assignments](#)[Resources](#)[Ed](#)[Gradescope](#)

## Data Science for the Social Sciences

Learning to use data to explore the social, political, and economic world

Gov 50 • Fall 2023  
Harvard University



### Instructor

-  [Prof. Matt Blackwell](#)
-  CGIS Knafel 305
-  [mblackwell@gov.harvard.edu](mailto:mblackwell@gov.harvard.edu)
-  [matt\\_blackwell](#)
-  [Schedule an appointment](#)

### Course details

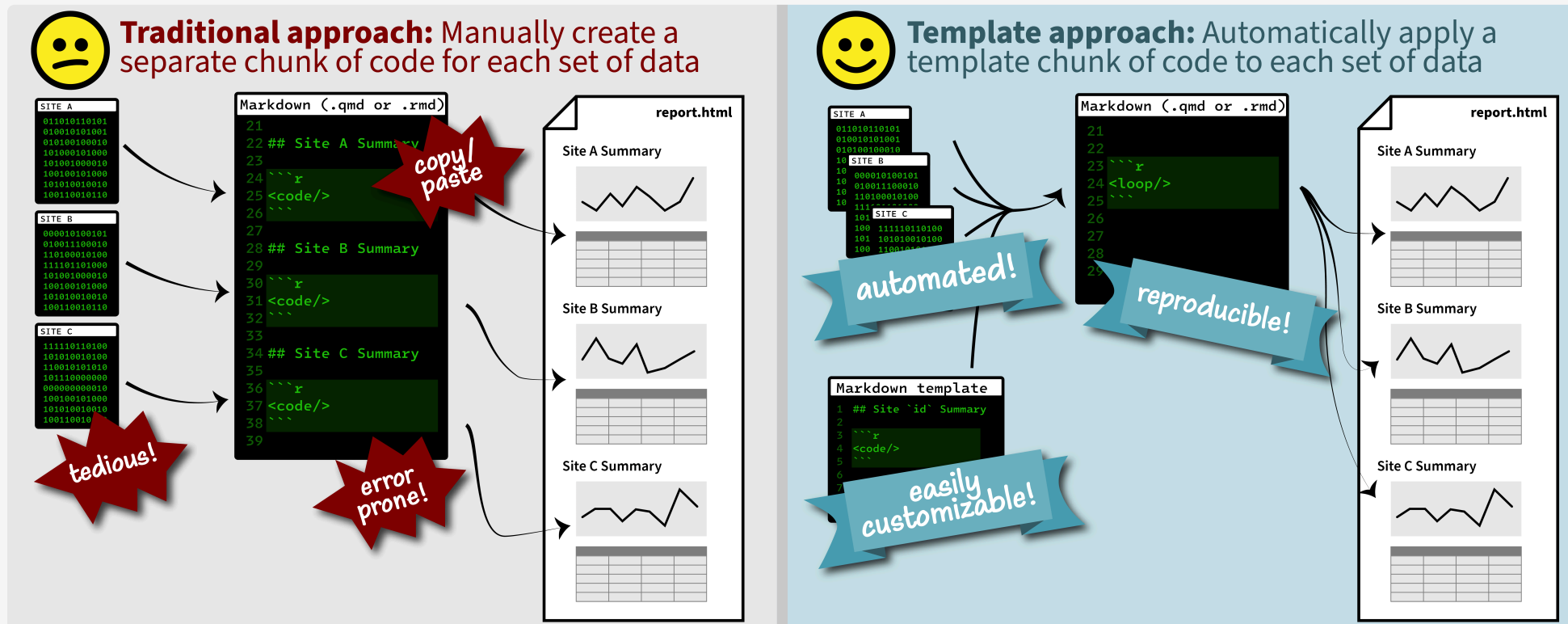
-  Tue/Thu
-  September 3rd-December 20th, 2023
-  12:00-1:15 PM
-  Emerson 105
-  [Slack](#)
-  [Schedule an appointment](#)

### Contacting me

General questions about the course should be posted to either the course Ed Discussion board or the course Slack. Someone on the teaching staff will attempt to respond to these messages within 25 hours, but also remember that life can be busy and chaotic for everyone (including me!), so if I don't respond right away, don't worry! For other issues (absences, etc),

# Automate and reproduce your output

Duplicating Quarto elements with code templates to reduce copy and paste errors by Althea A. Archer (United States Geological Survey)



# Get your team on the same page

**We Converted Our Documentation to Quarto** by Melissa Van Bussel (Statistics Canada)

We Converted our Documentation to Quarto - posit::conf(2023)



- Website for R/Python User Group
- Training resources
- Presentations

# Gapminder Report

This is what you'll work on today!

## Health and Wealth Around the World

Gapminder data, 1952–2007

### Introduction

This analysis shows trends in life expectancy and GDP per capita for 142 countries from XXXX to YYYY. The data was originally collected by Hans Rosling and the Gapminder foundation.

### Continent-level trends

Average life expectancy increased substantially between XXXX and YYYY. Asia saw the biggest average increase (see [Table 1](#)).

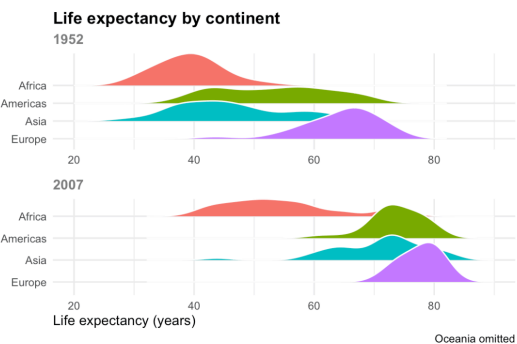


Figure 1: Distribution of life expectancy within continents

Table 1: Change in average life expectancy by continent

Continent	Averages		
	1952	2007	Change
Asia	46.3	70.7	24.4
Americas	53.3	73.6	20.3
Africa	39.1	54.8	15.7
Europe	64.4	77.6	13.2

# “Literate programming”

The screenshot displays the Quarto IDE interface for a project named 'quarto-websites-exercises\_2025-10'. The left sidebar shows the file explorer with '01-exercise.qmd' selected. The middle pane shows the R code for loading data and generating a report. The right pane shows the rendered HTML output, including a title, introduction, and two figures: 'Life expectancy by continent' and 'Health and wealth in 2007'.

```
1 ---
2 title: "Health and Wealth Around the World"
3 subtitle: "Gapminder data, 1952-2007"
4 format:
5   html:
6     code-fold: false
7     code-summary: "Show code"
8     embed-resources: true
9     knitr:
10      opts_chunk:
11        fig-align: "center"
12 execute:
13   warning: false
14   message: false
15   echo: false
16 ---
17
18 {r}
19 #| label: load-libraries-data
20 #| warning: false
21 #| message: false
22
23 library(tidyverse)
24 library(patchwork)
25 library(ggthemes)
26 library(tinytable)
27
28
29 ## Introduction
30
31 This analysis shows trends in life expectancy and GDP per capita for {r}
32 n_countries countries from XXXX to YYYY. The data was originally collected by
33 Hans Rosling and the Gapminder foundation.
34
35 ## Continent-level trends
36
37 Average life expectancy increased substantially between XXXX and YYYY. Asia saw
38 the biggest average increase (see @tbl-continent).
```

**Health and Wealth Around the World**  
Gapminder data, 1952-2007

**Introduction**

This analysis shows trends in life expectancy and GDP per capita for 142 countries from XXXX to YYYY. The data was originally collected by Hans Rosling and the Gapminder foundation.

**Continent-level trends**

Average life expectancy increased substantially between XXXX and YYYY. Asia saw the biggest average increase (see Table 1).

**Life expectancy by continent**

Figure 1: Distribution of life expectancy within continents

Table 1: Change in average life expectancy by continent

Continent	Averages		
	1952	2007	Change
Asia	46.3	70.7	24.4
Americas	53.3	73.6	20.3
Africa	39.1	54.8	15.7
Europe	64.4	77.6	13.2
Oceania	69.3	80.7	11.5

**Country-level trends**

Figure 2 recreates a part of Hans Rosling's famous "200 countries, 200 years, 4 minutes" video and shows the relationship between GDP per capita and life expectancy.

**Health and wealth in 2007**

Country population

- 250,000,000
- 500,000,000
- 750,000,000
- 1,000,000,000
- 1,250,000,000

Continent

- Africa
- Americas
- Asia
- Europe

# Why Quarto?

- Multilingual and independent of computational systems
- Quarto comes “**batteries included**” straight out of the box
- Consistent expression for core features
- Extension system
- Enable “single-source publishing”—create Word, PDFs, HTML, etc. from one source
- Use defaults that meet accessibility guidelines

# Quarto formats

Feature	Quarto
Basic formats	<b>html, pdf, docx, typst</b>
Beamer	<b>beamer</b>
PowerPoint	<b>pptx</b>
HTML slides	<b>revealjs</b>
Advanced layout	<b>Quarto Article Layout</b>
Cross references	<b>Quarto Crossrefs</b>
Websites & blogs	<b>Quarto Websites, Quarto Blogs</b>
Books	<b>Quarto Books</b>
Interactivity	<b>Quarto Interactive Documents</b>
Journal articles	<b>Journal Articles</b>
Dashboards	<b>Quarto Dashboards</b>

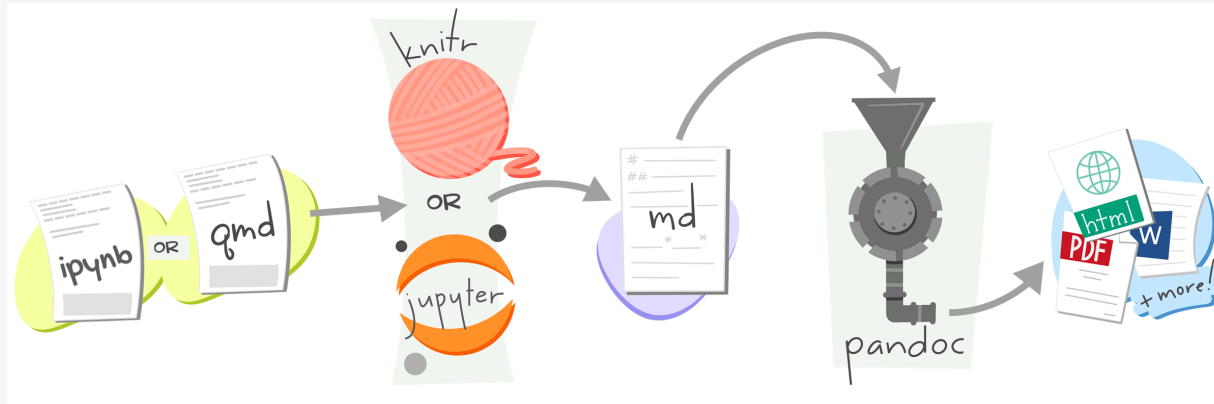


# How it works

Quarto is a command line interface (**CLI**) that renders plain text formats (`.qmd`, `.rmd`, `.md`) OR mixed formats (`.ipynb`/Jupyter notebook) into static PDF/Word/HTML reports, books, websites, presentations and more.

```
1  Usage:  quarto
2  Version: 1.8.24
3
4  Description:
5
6  Quarto CLI
7
8  Options:
9
10     -h, --help      - Show this help.
11     -V, --version   - Show the version number for this program.
12
13  Commands:
14
15     render          [input] [args...] - Render files or projects to various document types.
16     preview         [file] [args...] - Render and preview a document or website project.
17     serve           [input]           - Serve a Shiny interactive document.
18     create           [type] [commands...] - Create a Quarto project or extension
19     create-project  [dir]             - Create a project for rendering multiple documents
20     convert          <input>           - Convert documents to alternate representations.
21     pandoc           [args...]         - Run the version of Pandoc embedded within Quarto.
22     typst           [args...]         - Run the version of Typst embedded within Quarto.
23     run             [script] [args...] - Run a TypeScript, R, Python, or Lua script.
24     add             <extension>       - Add an extension to this folder or project
25     install         [target...]       - Installs an extension or global dependency.
```

# Under the hood



- `jupyter` or `knitr` evaluates Python, Julia, R, or Observable code and returns a `.md` file along with the evaluated code
- Quarto applies Lua filters + CSS/LaTeX which is then evaluated alongside the `.md` file by Pandoc and converted to a final output format

# Environment options

You have a couple options for following along today:

1. **Posit Cloud** (RStudio in the cloud)
2. **Local installation** (RStudio, Positron, or VS Code on your computer)

# Your turn

Go to the course website and click on [Setup](#) in the sidebar.

[andhs.co/quarto-websites-2025](https://andhs.co/quarto-websites-2025)

Follow the instructions for either Option 1 or Option 2.

05:00

# Quarto workflow

- Open a `.qmd` file.
- Preview/render the document.
- Make a change and preview/render again.



# Render/preview

RStudio

Positron / VS Code

Terminal



⌘ ↑ K



Ctrl + Shift + K



# Your turn

- Open `01-exercise.qmd`
- Preview/render the document
  - If you're using Posit Cloud, you might be asked to allow pop-ups
- Edit the title and preview the document again.

05:00

# Quarto documents



# Anatomy of a Quarto document

.qmd file format with three components:

1. **YAML**: Metadata
2. **Text**: Markdown
3. **Code**: R, Python, Observable, and Julia

**Weave it all together**, and you have beautiful, powerful, and useful outputs!

# Anatomy of a Quarto document

## Metadata: YAML

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 ---
```

- “Yet another markup language”
- Metadata of your document
- Starts and ends with `---`
- Uses key-value pairs in the format `key: value`

# Anatomy of a Quarto document

## Text: Markdown

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 ---
5
6 This analysis explores data from the Gapminder foundation.
```

- Markdown is a lightweight language for creating formatted text
- Quarto is based on Pandoc and uses its variation of markdown as its underlying document syntax

# Anatomy of a Quarto document

## Text: Markdown

```
my-document.qmd
```

```
1 The `gapminder.csv` dataset contains data from  
2 the Gapminder foundation(https://www.gapminder.org/).
```



The `gapminder.csv` dataset contains data from the **Gapminder foundation**.

# Anatomy of a Quarto document

## Text: Markdown

Markdown syntax	Output
<code>*italics*</code> and <code>**bold**</code>	<i>italics</i> and <b>bold</b>
<code>superscript^2^</code> / <code>subscript~2~</code>	superscript <sup>2</sup> / subscript <sub>2</sub>
<code>~~strikethrough~~</code>	<del>strikethrough</del>
<code>`verbatim code`</code>	verbatim code

General Markdown guide

# Anatomy of a Quarto document

## Code

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 ---
5
6 The `gapminder.csv` dataset contains data from the [**Gapminder foundation*
7
8 ```{r}
9 library(tidyverse)
10
11 df <- read_csv("data/gapminder.csv")
12
13 ggplot(df, aes(x = gdpPercap, y = lifeExp)) +
14   geom_point(aes(size = pop, color = continent)) +
15   scale_x_log10()
16 ```
```

# Anatomy of a Quarto document

## Code

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 ---
5
6 The `gapminder.csv` dataset contains
7
8 ```{r}
9 library(tidyverse)
10
11 df <- read_csv("data/gapminder.csv")
12
13 ggplot(df, aes(x = gdpPercap, y = lifeExp))
14   geom_point(aes(size = pop, color = continent))
15   scale_x_log10()
16 ```
```

- Code chunks begin and end with three backticks
- Code chunks are identified with a programming language in between `{}`

# Anatomy of a Quarto document

**Inline code** executes code *within Markdown*

my-document.qmd

```
1 ```{r}
2 countries <- 147
3 ```
4
5 There are `{r} countries` in the dataset.
```



There are 147 countries in the dataset.



# Anatomy of a Quarto document

**Code** can include optional chunk options, in YAML style, identified by `#|` at the beginning of the line

my-document.qmd

```
1 The `gapminder.csv` dataset contains data from the [**Gapminder foundation*
2
3 ```{r}
4 #| label: fig-neat-plot
5 #| echo: false
6 #| fig-width: 6
7 #| fig-height: 3.8
8 #| fig-cap: "My neat plot"
9
10 library(tidyverse)
11
12 df <- read_csv("data/gapminder.csv")
13
14 ggplot(df, aes(x = gdpPercap, y = lifeExp)) +
15   geom_point(aes(size = pop, color = continent)) +
16   scale_x_log10()
17 ```
```

# Anatomy of a Quarto document

**Code** can include optional chunk options, in YAML style, identified by `#|` at the beginning of the line

Option	Description
<code>eval</code>	Evaluate the code chunk
<code>echo</code>	Include the source code
<code>warning</code>	Include warnings
<code>include</code>	Include code and results

**Other chunk options**

# Your turn

- Open `01-exercise.qmd` and run some of the code chunks (in order!).
- Add `#| include: false` to the second chunk and preview again. Switch it back to `true` or remove it. Preview again.
- In the YAML area, add an `author` field and add your name. Preview again.
- Change `code-fold` to be true. Preview again.
- Edit the first paragraph to:
  1. Make something bold
  2. Make “the Gapminder foundation” link to <https://www.gapminder.org>
  3. Replace `XXXX` and `YYYY` with inline code instead of hardcoded values. The first code chunk creates R objects named `first_year` and `last_year`—use those.

05:00

# Authoring Quarto

# Images and links

## Markdown syntax

## Output

---

```
<https://quarto.org>
```

---

<https://quarto.org>

---

```
[Quarto](https://quarto.org)
```

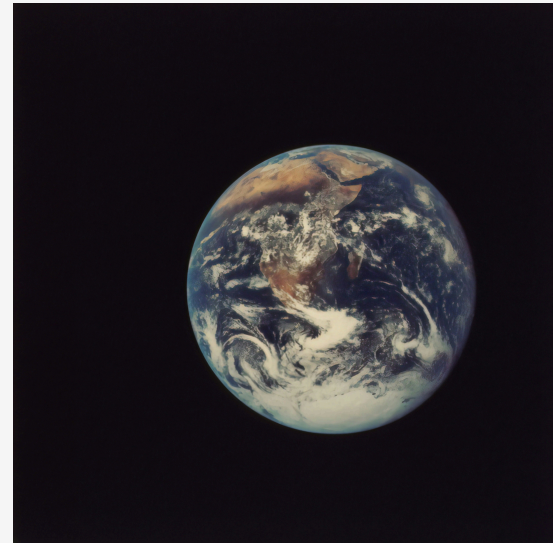
---

Quarto

---

```

```



# Tables

1	Right	Left	Default	Center
2	-----:	:-----	-----	:-----:
3	12	12	12	12
4	123	123	123	123
5	1	1	1	1



Right	Left	Default	Center
12	12	12	12
123	123	123	123
1	1	1	1

# Tables

```
1 | Right | Left | Default | Center |
2 | -----:| :-----| -----| :-----:|
3 |      12 | 12     | 12      |      12 |
4 |     123 | 123    | 123     |     123 |
5 |      1  | 1       | 1        |      1  |
6
7 : Table Column Widths {tbl-colwidths="[10,30,30,30]"}

```



Table Column Widths

Right	Left	Default	Center
12	12	12	12
123	123	123	123
1	1	1	1

# Citations

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 bibliography: references.bib
5 ---
6
7 Computers are neat [@Lovelace:1842].
```



Computers are neat (Lovelace 1842).

## References

Lovelace, Ada Augusta. 1842. "Sketch of the Analytical Engine Invented by Charles Babbage, by LF Menabrea, Officer of the Military Engineers, with Notes Upon the Memoir by the Translator." *Taylor's Scientific Memoirs* 3: 666–731.



# Citations

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 bibliography: references.bib
5 csl: apa.csl
6 ---
7
8 Computers are neat [@Lovelace:1842].
```



Computers are neat (Lovelace, 1842).

## References

Lovelace, A. A. (1842). Sketch of the analytical engine invented by Charles Babbage, by LF Menabrea, officer of the military engineers, with notes upon the memoir by the translator. *Taylor's Scientific Memoirs*, 3, 666–731.

# Citations

my-document.qmd

```
1 ---
2 title: "My Cool Document"
3 format: html
4 bibliography: references.bib
5 csl: chicago-notes-bibliography.csl
6 ---
7
8 Computers are neat [@Lovelace:1842].
```



Computers are neat<sup>1</sup>.

## Footnotes

1. Ada Augusta Lovelace, "Sketch of the Analytical Engine Invented by Charles Babbage, by LF Menabrea, Officer of the Military Engineers, with Notes Upon the Memoir by the Translator," *Taylor's Scientific Memoirs* 3 (1842): 666–731.↩

# Citations

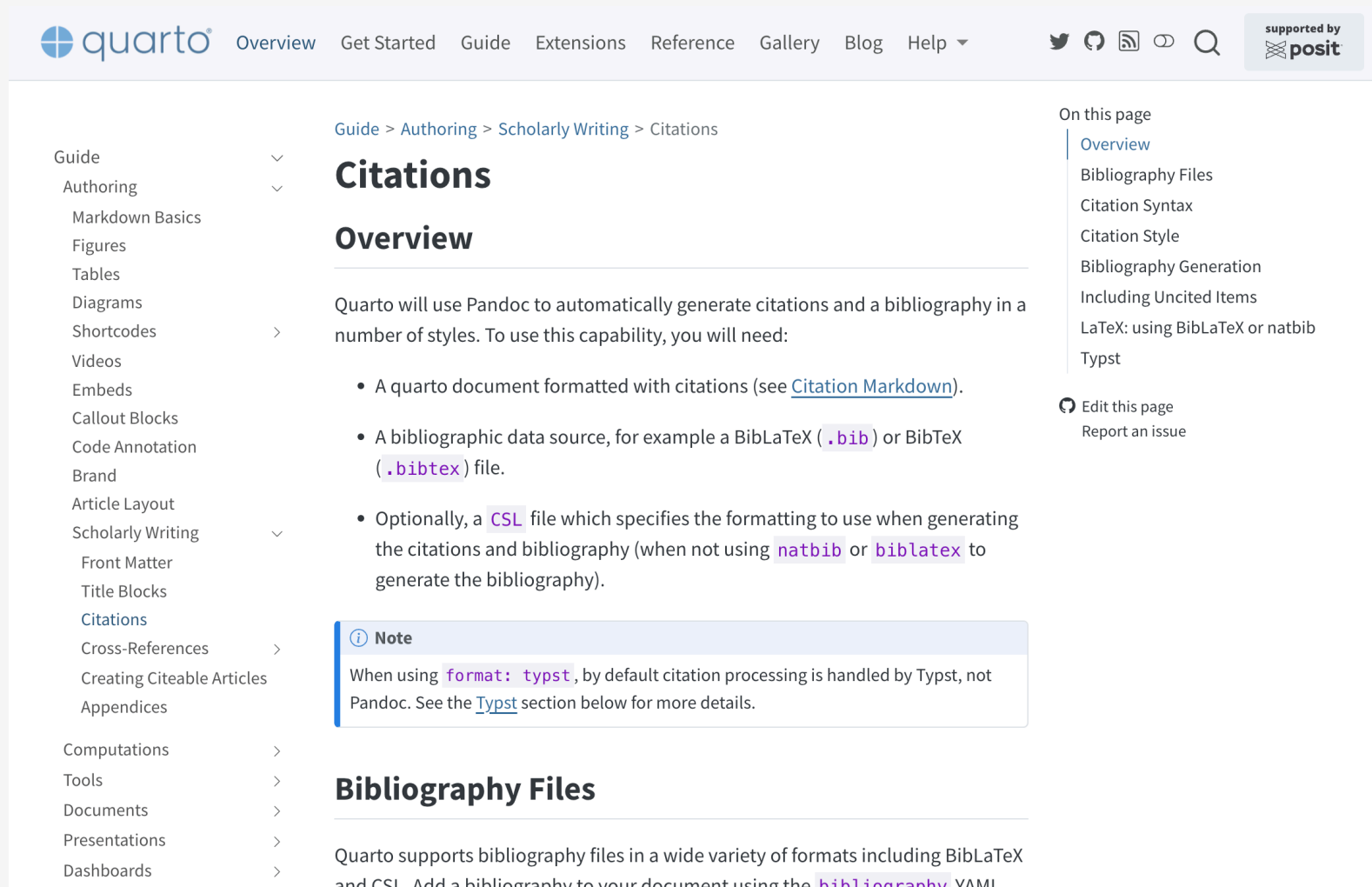
**Zotero** + **Better BibTeX**  
can manage references  
and export them for  
Quarto

10,000 bibliographic styles  
are available at

<https://www.zotero.org/styles>



# Don't memorize this stuff!



The screenshot shows the Quarto.org website interface. The top navigation bar includes the Quarto logo, links for Overview, Get Started, Guide, Extensions, Reference, Gallery, Blog, and Help, along with social media icons and a 'supported by posit' badge. The left sidebar contains a tree view of the site's content, with 'Citations' selected under 'Scholarly Writing'. The main content area displays the 'Citations' page, which includes a breadcrumb trail, a title, an overview paragraph, a list of requirements, a note about Typst, and a section for 'Bibliography Files'. The right sidebar lists 'On this page' links and options to 'Edit this page' or 'Report an issue'.

quarto® Overview Get Started Guide Extensions Reference Gallery Blog Help

supported by posit

Guide > Authoring > Scholarly Writing > Citations

## Citations

### Overview

Quarto will use Pandoc to automatically generate citations and a bibliography in a number of styles. To use this capability, you will need:

- A quarto document formatted with citations (see [Citation Markdown](#)).
- A bibliographic data source, for example a BibLaTeX (`.bib`) or BibTeX (`.bibtex`) file.
- Optionally, a `CSL` file which specifies the formatting to use when generating the citations and bibliography (when not using `natbib` or `biblatex` to generate the bibliography).

**Note**

When using `format: typst`, by default citation processing is handled by Typst, not Pandoc. See the [Typst](#) section below for more details.

### Bibliography Files

Quarto supports bibliography files in a wide variety of formats including BibLaTeX and CSL. Add a bibliography to your document using the `bibliography` YAMl

On this page

- [Overview](#)
- [Bibliography Files](#)
- [Citation Syntax](#)
- [Citation Style](#)
- [Bibliography Generation](#)
- [Including Uncited Items](#)
- [LaTeX: using BibLaTeX or natbib](#)
- [Typst](#)

Edit this page  
Report an issue

Quarto.org > Guide > Authoring > Scholarly Writing > Citations

# Cross references

my-document.qmd

```
1 See @fig-neat-plot for more details.  
2  
3 ```{r}  
4 #| label: fig-neat-plot  
5 #| fig-cap: "My neat plot"  
6  
7 # Plot code here  
8 ```
```



See Figure 1 for more details.

...

Figure 1: My neat plot

# Don't memorize this stuff!

quarto<sup>®</sup>

OverviewGet StartedGuideExtensionsReferenceGalleryBlogHelp

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posit

Guide

Authoring

Markdown Basics

Figures

Tables

Diagrams

Shortcodes

Videos

Embeds

Callout Blocks

Code Annotation

Brand

Article Layout

Scholarly Writing

Front Matter

Title Blocks

Citations

Cross-References

Basics

Options

Div Syntax

Custom Floats

Creating Citeable Articles

Appendices

Computations

Guide > Authoring > Scholarly Writing > Cross-References > Basics

## Cross References

### Overview

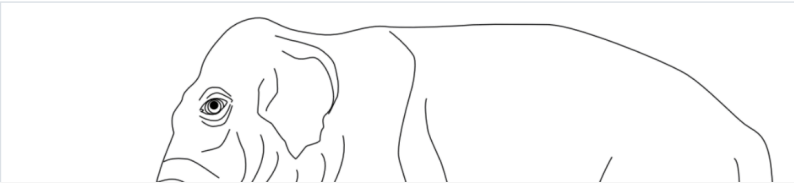
Cross-references make it easier for readers to navigate your document by providing numbered references and hyperlinks to various entities like figures and tables. Every cross-referenceable entity requires a label—a unique identifier prefixed with a cross-reference type e.g. `#fig-element`. For example, this is a cross-referenceable figure:

```
! [Elephant] (elephant.png) {#fig-elephant}
```

The presence of the label (`#fig-elephant`) makes this figure referenceable. This enables you to use the following syntax to refer to it elsewhere in the document:

```
See @fig-elephant for an illustration.
```

Here is what this would look like rendered to HTML:



On this page

Overview

References

Lists

Floats

Figures

Tables

Code Listings

Callouts

Theorems and Proofs

Equations

Sections

Edit this page

Report an issue

Quarto.org > Guide > Authoring > Scholarly Writing > Cross-References

# Divs and Spans

For further customization, you can add classes, attributes, and other identifiers to content using divs and spans.

## Divs

```
1 ::: {.border}
2 This adds the "border" class to some content.
3 :::
```

## Spans

```
1 [This is some text]{.class style="color: #cccccc;"}
```

# Divs

## Callout blocks

my-document.qmd

```
1 :::{.callout-tip}  
2  
3 Note that there are five types of callouts, including:  
4 `note`, `tip`, `warning`, `caution`, and `important`.  
5  
6 :::
```



### Tip

Note that there are five types of callouts, including: `note`, `tip`, `warning`, `caution`, and `important`.



# Divs

## Multiple columns

```
my-document.qmd
```

```
1 ::: {layout-ncol=2}
```

```
2
```

```
3 
```

```
4
```

```
5 Photo by [The New York Public Library](https://unsplash.com/@nypl) on [Unsp
```

```
6 :::
```



Photo by **The New York  
Public Library** on  
**Unsplash**

# Divs

## Tabsets

my-document.qmd

```
1 ::: {.panel-tabset}
2 ## R
3
4 `library(dplyr)`
5
6 ## Python
7
8 `import pandas as pd`
9 :::
```

R

Python

`library(dplyr)`

# Spans

```
my-document.qmd
```

```
1 This is text that is [red]{style="color:red;"}
```

This is text that is red.

# Changing formats

my-document.qmd

```
1 ---  
2 title: "My Cool Document"  
3 format: html  
4 ---
```

# Changing formats

my-document.qmd

```
1 ---  
2 title: "My Cool Document"  
3 format: revealjs  
4 ---
```







## Health and Wealth Around the World

Gapminder data, 1952–2007

2025-10-16



# Don't memorize this stuff!

 [Overview](#) [Get Started](#) [Guide](#) [Extensions](#) [Reference](#) [Gallery](#) [Blog](#) [Help](#)     

Guide

Authoring

Markdown Basics

Figures

Tables

Diagrams

Shortcodes

Videos

Embeds

Callout Blocks

Code Annotation

Brand

Article Layout

Scholarly Writing

Computations

Tools

Documents

Presentations

Dashboards

Websites

Books

Manuscripts

Interactivity

Publishing

Projects

Advanced

Guide > Authoring > Markdown Basics

## Markdown Basics

### Overview

Quarto is based on Pandoc and uses its variation of markdown as its underlying document syntax. Pandoc markdown is an extended and slightly revised version of John Gruber's [Markdown](#) syntax.

Markdown is a plain text format that is designed to be easy to write, and, even more importantly, easy to read:

A Markdown-formatted document should be publishable as-is, as plain text, without looking like it's been marked up with tags or formatting instructions. – [John Gruber](#)

This document provides examples of the most commonly used markdown syntax. See the full documentation of [Pandoc's Markdown](#) for more in-depth documentation.

### Text Formatting

Markdown Syntax	Output
<code>*italics*, **bold**, ***bold italics***</code>	<i>italics</i> , <b>bold</b> , <b><i>bold italics</i></b>
<code>superscript^2^ / subscript~2~</code>	<sup>superscript<sup>2</sup></sup> / <sub>subscript<sub>2</sub></sub>

On this page

[Overview](#)

[Text Formatting](#)

[Headings](#)

[Links & Images](#)

[Lists](#)

[Footnotes](#)

[Tables](#)

[Source Code](#)

[Raw Content](#)

[Equations](#)

[Diagrams](#)

[Videos](#)

[Page Breaks](#)

[Divs and Spans](#)

[Callout Blocks](#)

[Other Blocks](#)

[Other Spans](#)


[Special Characters](#)

[Keyboard Shortcuts](#)

[Edit this page](#)

[Report an issue](#)

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Quarto.org > Guide > Authoring

# Your turn

- Add an [important](#) callout box to the introduction summarizing the report's findings. Preview the file.
- Change the caption for the first plot. Preview again.
- Change some text color to [#ec008b](#). Preview again.
- Edit the "Average life expectancy increased..." paragraph to say "According to Figure 1, average life expectancy increased...", **BUT** do it without typing "Figure 1". Preview again.
- In the first paragraph, add a citation to something in [bib/references.bib](#). Preview again.
- Change the bibliography style to APA. Preview again.


05:00

The background of the slide is a repeating pattern of teal-colored hexagons of varying shades, creating a textured, honeycomb-like effect.

# What's next?



# Course outline

-  ~~Intro to Quarto~~
- Creating basic websites
- Advanced website features
- Publishing
- Customization and branding
- Interactivity