MATH9102 Fundamentals of Data Analysis

GETTING STARTED WITH QUARTO

Quarto

Quarto is an open-source publishing system for creating documents, presentations, blogs, and dashboards.

It is the next-generation version of R Markdown, supporting multiple languages, including R, Python, and Julia.

Why Use Quarto with R?

- Seamless integration with R for data analysis and visualization.
- Create reproducible reports and dynamic documents.
- Publish results in various formats (HTML, PDF, Word, slides).

Key Features

Multi-Format Output:
- Export to HTML, PDF, Word, and more.

Code and Output Integration:
- Run R code directly in the document with output inline.

Interactive Visualizations:
- Use ggplot2, plotly, and leaflet within reports.

Cross-Referencing and Citations:
- Add figures, tables, and references easily.

Version Control:
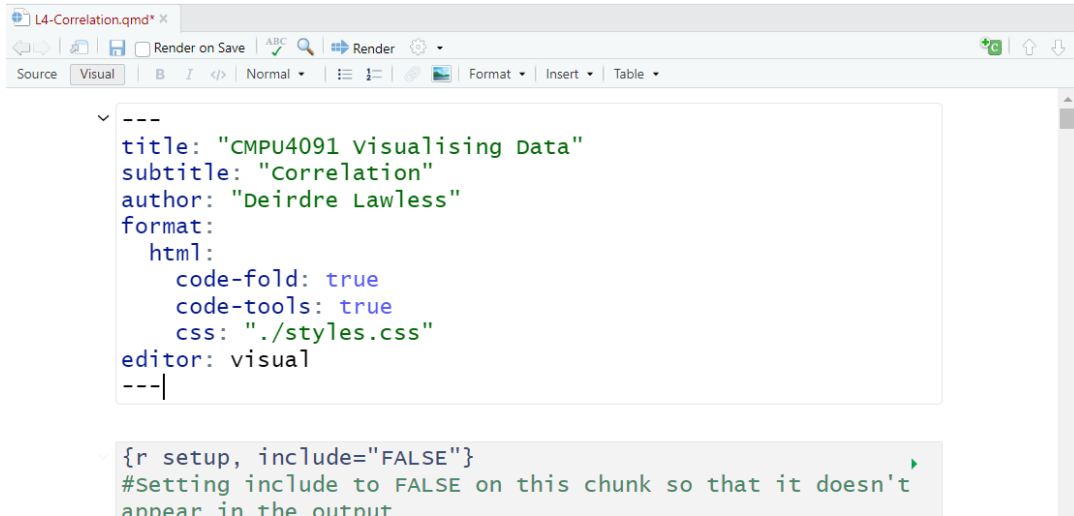- Work with Git for collaborative projects.

Some Basics

File extension
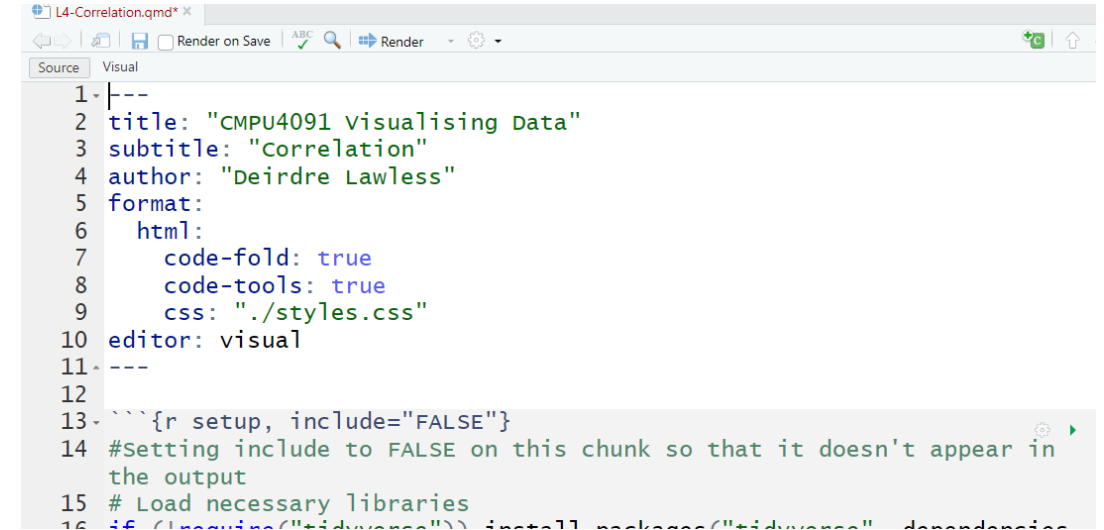- .qmd

Use the Render button in the RStudio IDE to render the file:

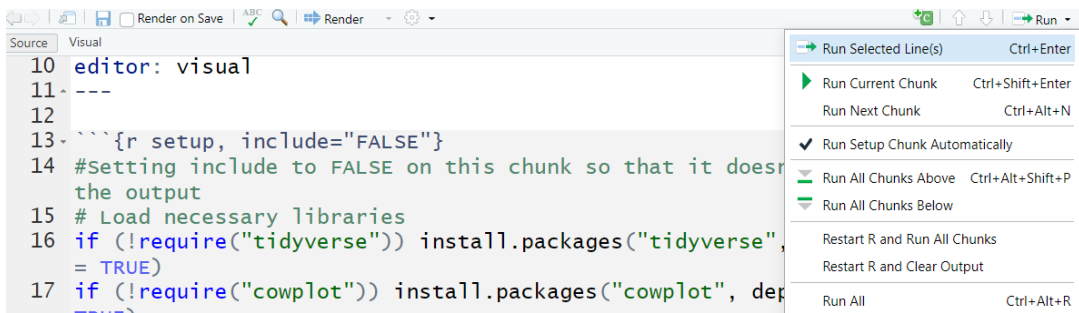Keyboard shortcuts:
- Windows: Ctrl + Shift + K
- Mac: ⇧⌘K

Visual (WYSIWYM) or Source Editor

```yaml
---
title: "Hello, Quarto"
format: html
editor: visual
---
```

```r
```{r}
#| label: load-packages
#| include: false

library(tidyverse)
library(palmerpenguins)
```
```

YAML Header and Code Chunks

Running Chunks

Markdown Syntax

https://www.markdownguide.org/basic-syntax/

Lightweight markdown language– very similar to HTML