

How to Create a PDF in Quarto

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1 Overview

This documentation shows you how to generate a **PDF** from a Quarto (`.qmd`) document.

Note

What you'll learn

1. Install the LaTeX engine (TinyTeX).
2. Write a minimal `.qmd` file.
3. Render to PDF from RStudio/VS Code/Terminal.
4. Troubleshoot common errors.

2 Prerequisites

- **Quarto** installed: <https://quarto.org/docs/get-started/>
- A LaTeX engine. The easiest is **TinyTeX** (lightweight TeX Live).
 - If you use R, run in R/RStudio:

```
install.packages("tinytex")
tinytex::install_tinytex()
```

- Alternatively install **TeX Live** (Linux/macOS) or **MiKTeX** (Windows).

3 Minimal Example

Create a file named `mydoc.qmd` with the content below:

```
---
title: "My First PDF in Quarto"
author: "Student Name"
format: pdf
---

# Introduction

This is my first PDF created with Quarto!
```

3.1 Render the PDF

Option A: RStudio / VS Code - Open `mydoc.qmd` and click **Render**.

Option B: Terminal

```
quarto render mydoc.qmd
```

The output file will be `mydoc.pdf` in the same folder.

4 Customizing the PDF

You can customize the PDF via YAML:

```
---
title: "Research Report"
author: "Student Name"
date: today
format:
  pdf:
    documentclass: article
    fontsize: 12pt
    geometry: margin=1in
    toc: true
    number-sections: true
---
```

4.1 Sections, Equations, Figures, and Tables

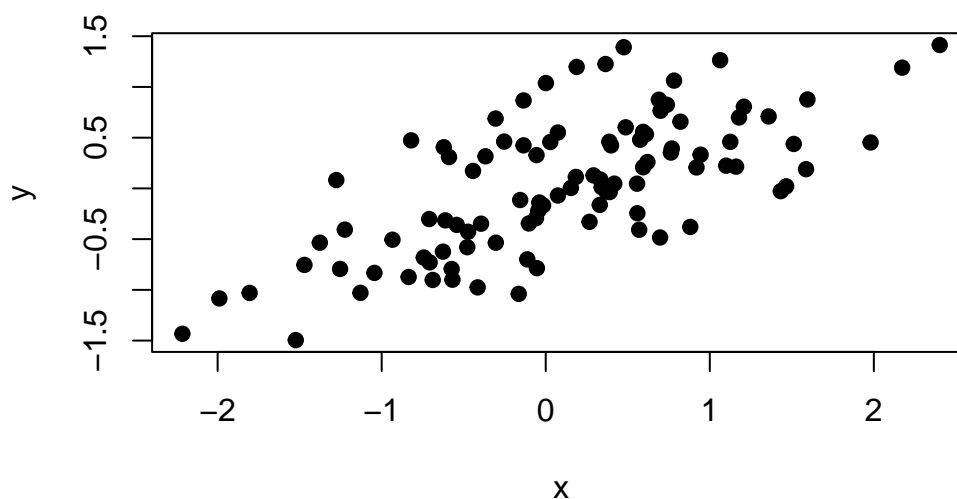
4.1.1 Math

Inline math like $y = \beta_0 + \beta_1 x + \varepsilon$, and a display equation:

$$\hat{\beta} = (X'X)^{-1}X'y.$$

4.1.2 Figure

Figure 1: Example scatter plot



4.1.3 Table

x		y	
Min.	:-2.2147	Min.	:-1.49541
1st Qu.	:-0.4942	1st Qu.	:-0.41232
Median	: 0.1139	Median	: 0.06456
Mean	: 0.1089	Mean	: 0.03554
3rd Qu.	: 0.6915	3rd Qu.	: 0.46009
Max.	: 2.4016	Max.	: 1.41336

5 Troubleshooting

Problem: “*LaTeX Error: File `xyz.sty` not found*”

Fix: Install the missing package. If using TinyTeX in R:

```
tinytex::tlmgr_install("xyz")
```

Problem: *Quarto can't find LaTeX*

Fix: Ensure TinyTeX/MiKTeX/TeX Live is installed and on your PATH; restart RStudio/VS Code.