

Example Table

Your Name

2025-11-28

This template demonstrates a complete Quarto report with titles, sections, tables, references, formulas, cross-references, and executable code.

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1 Intro

This document is a reusable template for analytical reports in Quarto. It supports citations like Roback and Legler [Roback and Legler \(2021\)](#) and Schober et al. [Schober, Boer, and Schwarte \(2018\)](#). You can also use custom macros from the header like `term` and `Hello from a macro!`.

We will reference Equation [Equation 1](#), Figure [Figure 1](#), and Table [Table 2](#) as examples.

2 Methods

2.1 Model

We use logistic regression to model binary outcomes:

$$P(y = 1 \mid x) = \sigma(w^\top x + b) = \frac{1}{1 + e^{-(w^\top x + b)}} \quad (1)$$

For correlated features, interpret coefficients carefully; see Schober, Boer, and Schwarte (2018) for guidance on correlation.

2.2 Data

Example data dictionary:

Variable	Type	Description
age	numeric	Age in years
educational-num	numeric	Years of education
hours-per-week	numeric	Weekly work hours
workclass	category	Employment type
income_>50K	binary	1 if income > 50K, else 0

3 Results

3.1 Example Figure

```
import numpy as np
import matplotlib.pyplot as plt
x = np.linspace(0, 2*np.pi, 300)
plt.plot(x, np.sin(x), color="#2E86AB", lw=2)
plt.xlabel("x")
plt.ylabel("sin(x)")
plt.title("Sine Wave")
plt.grid(alpha=0.3)
```

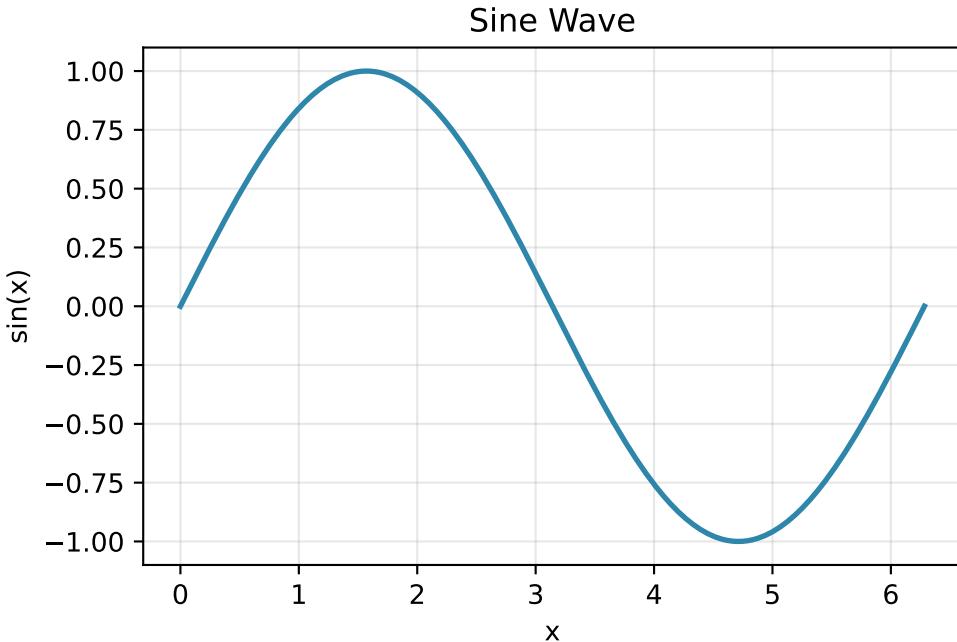


Figure 1: Sample figure demonstrating a simple sine wave.

```
import pandas as pd
df = pd.DataFrame({
    "Metric": ["Accuracy", "Precision", "Recall", "F1"],
    "Score": [0.85, 0.79, 0.72, 0.75]
})
df
```

Table 2: Sample data table created in Python.

	Metric	Score
0	Accuracy	0.85
1	Precision	0.79
2	Recall	0.72
3	F1	0.75

We refer to Figure Figure 1 and Table Table 2 for demonstration.

4 Discussion

- Quarto enables reproducible, documented analysis with code and narrative.
- Equations like Equation 1 are first-class citizens alongside figures and tables.
- Use citations such as Roback and Legler (2021) to anchor methods in literature.

5 Conclusion

This template can be cloned for new reports. Replace text, update references, and embed your analysis code.

6 Appendix

6.1 Additional Math

A simple linear model:

$$y = X\beta + \varepsilon \quad (2)$$

Refer to Equation [Equation 2](#) in text.

6.2 Re-usable Blocks

- Use sections and sub-sections to structure content.
- Add callouts, code-folding, and filters as needed.
- Keep references in references.bib and cite with @key.

References

- Roback, Paul, and Julie Legler. 2021. *Beyond Multiple Linear Regression: Applied Generalized Linear Models and Multilevel Models in r*. Chapman; Hall/CRC. <https://bookdown.org/roback/bookdown-BeyondMLR/ch-MLReview.html>.
- Schober, Patrick, Christa Boer, and Lothar A. Schwarte. 2018. “Correlation Coefficients: Appropriate Use and Interpretation.” *Anesthesia & Analgesia* 126 (5): 1763–68. <https://doi.org/10.1213/ANE.0000000000002864>.