

# Structure of Quarto notebooks

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## 1 Learning objectives

1. Create a Quarto document
2. Setup the R environment to be able to use and render Quarto documents
3. Edit Quarto documents
4. Render Quarto documents in different formats

## 2 Exploring the structure of the Quarto document

There are three basic components to a Quarto document.

## 2.1 Header

At the top of the Quarto document, you will see something that looks as follows:

```
---  
title: "Untitled"  
format: html  
---
```

This section is called the **YAML header** and it contains commands and metadata about the Quarto document. There is only one unique header in a Quarto document and it is always surrounded by `---` lines on the top and bottom of the section.

YAML is a data format that has the form of a **key: value pairing** to store data. The keys in this case are *title* and *format*. The values are those that follow the key (e.g., “Untitled” for title). These key data are used to store the settings that Quarto will use to render the output document. The keys listed above are some of many settings that Quarto has available to use.

## 2.2 Markdown text

In white background areas, any text will appear as regular text in the final report. This is actually a markup language, which can have formatting such as headings, italics, bold, numbers, and bullets.

## 2.3 Code

Code chunks, typically shown within gray backgrounds, execute commands in Quarto. In the example provided, R code is being run within these chunks. These commands may handle data processing, cleaning, or the generation of visual outputs that are integrated into the final document.

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### Task 2  
  
Display data. To run the code in "notebook" mode, click the green arrow on the right side of the code chunk.  
  

```
```{r}  
df <- iris  
df |>  
  head(5) |>  
  knitr::kable()  
```
```

Markdown text

R command within code chunks

Output

| Sepal.Length | Sepal.Width | Petal.Length | Petal.Width | Species |
|--------------|-------------|--------------|-------------|---------|
| 5.1          | 3.5         | 1.4          | 0.2         | setosa  |
| 4.9          | 3.0         | 1.4          | 0.2         | setosa  |
| 4.7          | 3.2         | 1.3          | 0.2         | setosa  |
| 4.6          | 3.1         | 1.5          | 0.2         | setosa  |
| 5.0          | 3.6         | 1.4          | 0.2         | setosa  |

### 3 References

- [The Epidemiologist R Handbook](#)
- [Analytically reproducible documents](#)