Using Markdown

Markdown

Markdown is a lightweight **syntax** that is used to describe the format and structure of text documents. With only a small handful of options, Markdown allows you to apply formatting to your text (such as making text **bold** or *italic*), as well as to provide structure to a document (such as headers or bullet points). Mastering the basics of writing Markdown will allow you to quickly and easily create *well-formatted* documents.

At its most basic, Markdown is used to declare text formatting options. You do this by adding special symbols (punctuation) around the text you wish to "mark."

Text Formatting

Syntax	Formatting
text	emphasize (_italicize_) using underscores (_)
text	strongly emphasize (**bold**) using two asterisks (*)
`text`	code style using backticks (`)
~~text~~	strike-through using two tildes (~)
#	Header (use ## for second level, ### for third level, etc.)
``	Code section (three backticks) that encapsulate the code
-	Bulleted/unordered lists (hyphens)
>	Block quote

Hyperlinks

Providing hyperlinks in documentation is a great way to reference other resources on the web. You turn text into a hyperlink in Markdown by surrounding the text in square brackets [ ] , and placing the URL to link to immediately after that in parentheses () . Here's an example:

`[text to display](https://some/url/or/path)`

The text between the brackets ("text to display") will be displayed in your document with hyperlink formatting.

While the URL is most commonly an absolute path to a resource on the web, it can also be a relative path to another file on the same machine (the file path is relative to the Markdown document that contains the link). This is particularly useful for linking from one Markdown file to another.

Images

Markdown also supports the rendering of images in your documents, which allows you to include diagrams, charts, and pictures in your documentation. The syntax for including images is similar to that for hyperlinks, except with an exclamation point ! before the link to indicate that it should be shown as an image:

```
![description of the image](path/to/image)
```

When shown as an image, the "description of the image" becomes an **alternate text** description for the image, which will be shown if the image cannot be shown (e.g., if it fails to load). This is particularly important for the **accessibility** of the documents you create, as anyone using a screen reader can read the description provided in place of the image.

Tables

Tables are useful for *organizing content,* though they are somewhat verbose to express in markup syntax.

Syntax	Formatting
`#`	Header (use `##` for second level, `###` for third level, etc.)
`-`	Bulleted/unordered lists (hyphens)
`>`	Block quote

This is known as a ***pipe table***, as columns are separated with the pipe symbol (|). The first line contains the column headers, followed by a line of hyphens (–), followed by each row of the table on a new line. The colon (:) next to the hyphens indicates that the content in that column should be aligned to the left.

We will practice creating Markdown files using RStudio, and will work with multiple R Notebooks (a type of R Markdown file) in this course to illustrate different data science concepts and tools.