

Markdown Guide

Puthearath Aim

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Introduction

Welcome to a markdown guide. The aim to provide the general quirks of markdown; intended to be revisited as often as needed.

I tend to forget some specific markdown syntax; by which this guide provides a nice reference for. Also, writing this markdown guide in markdown is just wonderful.

What is markdown?

Markdown is a markup language with plain text formatting syntax (basically better text). It converts plain text to HTML.

Why use markdown?

- Markdown is incredibly lightweight compared to rich text formats; such as `.rtf` or `.docx`.
- It is arguably the simplest markup language there is.
- Can be converted to a plethora of formats seamlessly; such as `.html`, `.pdf`, `.docx`, etc. (which implies that `.md` files are essentially future-proof).

Where is markdown used?

- Repositories such as [GitHub](#) (README.md files) for software documentation.
- Forums and blog posts within applications or websites.
- Static websites.
- Documents and notes.
- Email formatting.
- This markdown guide.

Headings and Sub-headings

Prepending a # before some text promotes it to a heading. Prepending additional #'s demotes it to a sub-heading, sub-sub-heading and so on.

Adding one (or multiple) = below the text also promotes it to a heading. Use - for a sub-heading.

Raw

```
# Heading
## Sub-heading
### Sub-sub-heading
#### Sub-sub-sub-heading
##### Sub-sub-sub-sub-heading
```

```
Also Heading
===
Also sub-heading
---
```

Formatted

Heading

Sub-heading

Sub-sub-heading

Sub-sub-sub-heading

Sub-sub-sub-sub-heading

Also Heading

Also sub-heading

Generic Formatting

Raw

Paragraphs are separated by a blank line.

Two spaces at the end of a line
produce a line break.

Text attributes: `_italic_`, `*also italic*`, `**bold**`, `__also bold__`, ``mono-space``, `~~strike-through~~`.

Formatted

Paragraphs are separated by a blank line.

Two spaces at the end of a line
produce a line break.

Text attributes: *italic*, *also italic*, **bold**, **also bold**, `mono-space`, ~~strike-through~~.

Lists

A blank line between list elements (sometimes) produces a larger space between the elements.

Raw

Unordered list:

- * Fruits
 - Apples
 - Oranges
 - + Orange
 - Green
- + Meat

Subsequent indented paragraphs belong to the list element.

* Dairy

```
```\nif(height<10cm){shortPerson.drinkMilk()}\n```
```

- Vegetables

Ordered list:

1. Uno
- 2) Dos
- 3) Tres
  
4. Cuatro

## Formatted

Unordered list:

- Fruits
  - Apples
  - Oranges
    - \* Orange
    - \* Green

- Meat

Subsequent indented paragraphs belong to the list element.

- Dairy

```
if(height<10cm){shortPerson.drinkMilk()}
```

- Vegetables

Ordered list:

1. Uno
- 2) Dos
- 3) Tres
  
4. Cuatro

## Links

### Raw

A [Wikipedia](https://www.wikipedia.org "Wikipedia Home") and [Google][identifier] hyper-link.

A <https://directlink.tv> and <directlink@email.org>.

[identifier]: https://www.google.com "Google Home"

### Formatted

A [Wikipedia](https://www.wikipedia.org) and [Google](#) hyper-link.

A <https://directlink.tv> and [directlink@email.org](mailto:directlink@email.org).

## Horizontal Rule

Horizontal rules are not used that often.

### Raw

Horizontal rule:

---

Also horizontal rule:

---

Also also horizontal rule:

\*\*\*

### Formatted

Horizontal rule:

---

Also horizontal rule:

---

Also also horizontal rule:

---

## Images

Text within the quotes after the image directory is the text displayed when the image directory is not found.

### Raw

```
![Markdown Icon](../images/markdown-icon.png "Markdown Icon")
```

### Formatted



Figure 1: Markdown Icon

## Block-quotes

Prepend a > in every line of the block for a block-quote.

### Raw

```
> Append two space in first line
> for a line-break in block-quote.
>
> Second paragraph in block-quote.
>
>> Deeper block-quote with additional `>`.
>>
>>> Even deeper block-quote.
```



>>>

## Formatted

Append two space in first line  
for a line-break in blockquote.

Second paragraph in blockquote.

Deeper blockquote with additional >.

Even deeper blockquote.

## Code-blocks

Surround the block with three `’s or three ~’s (above and below the block).

Optionally append the first line with the name of the defined language for syntax highlighting.

A code-block can also be formed with a prepended tab (four spaces) in each line.

## Raw

```
```Python
# A code-block
import numpy as np
def func(x):
    """Returns sin squared of a number."""
    assert type(x) in (int,float)
    return np.sin(x)**2
if __name__ == '__main__':
    pass
```
```

```
~~~C++
// Another code-block
for(int i=0;i++;i<42){
    Serial.println(i);
}
~~~
```

```
 free(malloc(69))
 malloc(free(42))
```

## Formatted

```
A code-block
import numpy as np
def func(x):
 """Returns sin squared of a number."""
 assert type(x) in (int,float)
 return np.sin(x)**2
if __name__ == '__main__':
 pass

// Another code-block
for(int i=0;i++;i<42){
 Serial.println(i);
}

free(malloc(69))
malloc(free(42))
```

## Comments

### Raw

<Comment>

<!--

Comment

-->

[//]: # (This is the most platform independent syntax.)

[///]: # (This will not be included in the output file.)

## Formatted

## Footnotes

### Raw

Text<sup>[^footnote-identifier]</sup> with a footnote<sup>[^long-footnote]</sup> and inline<sup>^</sup>[You do not have to c

[^footnote-identifier]: Footnote information.

[^long-footnote]: Footnote with multiple blocks.

Subsequent indented paragraphs belong to the footnote.

```
code.isNone() == True
```

## Formatted

Text<sup>1</sup> with a footnote<sup>2</sup> and inline<sup>3</sup>.

## LaTeX

Surround LaTeX code with double \$.

## Raw

```
$$\frac{some}{69}\cdot\frac{420}{LaTeX}$$
```

## Formatted

$$\frac{some}{69} \cdot \frac{420}{LaTeX}$$

## Tables

Generally and unfortunately, for some table styles, you cannot directly set the column width; unless you perform some wonky stuff with its behaviour.

## Raw

```
Left	Centre	Right
1,1	1,2	1,3
2,1	2,2	2,3
3,1	3,2	3,3
4,1	4,2	4,3
```

---

<sup>1</sup>Footnote information.

<sup>2</sup>Footnote with multiple blocks.

Subsequent indented paragraphs belong to the footnote.

```
code.isNone() == True
```

<sup>3</sup>You do not have to create an identifier.

Table: Pipe Table

## Formatted

Table 1: Pipe Table

| Left | Centre | Right |
|------|--------|-------|
| 1,1  | 1,2    | 1,3   |
| 2,1  | 2,2    | 2,3   |
| 3,1  | 3,2    | 3,3   |
| 4,1  | 4,2    | 4,3   |

## Pandoc Tables

### Raw

```
Left Centre Right

1,1 1,2 1,3
2,1 2,2 2,3
3,1 3,2 3,3
4,1 4,2 4,3
```

: Simple Table

```

1,1 1,2 1,3
2,1 2,2 2,3
3,1 3,2 3,3
4,1 4,2 4,3

```

: Header-less Simple Table

```

Left Centre Right
Aligned Aligned Aligned

This sentence 1,2 1,3
spans two lines
```

2,1                      2,2              Note the the blank  
                                          line between rows.

-----

: Multi-line Table

: Grid Table

|                      |  |
|----------------------|--|
| +-----+-----+        |  |
| Default      Default |  |
| +=====+=====+        |  |
| - 0.33,1       1,2   |  |
| - 0.67,1             |  |
| +-----+-----+        |  |
| - 1.33,1       2,2   |  |
| - 1.67,1             |  |
| +-----+-----+        |  |

: Piped Grid Table

|                     |  |
|---------------------|--|
| +----+-----+-----+  |  |
| Left Centre Right   |  |
| +:===+:====+:====:+ |  |
| 1,1   1,2   1,3     |  |
| +----+-----+-----+  |  |
| 2,1   2,2   2,3     |  |
| +----+-----+-----+  |  |
| 3,1   3,2   3,3     |  |
| +----+-----+-----+  |  |
| 4,1   4,2   4,3     |  |
| +----+-----+-----+  |  |

: Header-less Grid Table

|                     |  |
|---------------------|--|
| +:---+:----+:----:+ |  |
| 1,1   1,2   1,3     |  |
| +----+-----+-----+  |  |
| 2,1   2,2   2,3     |  |
| +----+-----+-----+  |  |
| 3,1   3,2   3,3     |  |

```

+-----+-----+-----+
|4,1 | 4,2 | 4,3|
+-----+-----+-----+

```

## Formatted

Table 2: Simple Table

| Left | Centre | Right |
|------|--------|-------|
| 1,1  | 1,2    | 1,3   |
| 2,1  | 2,2    | 2,3   |
| 3,1  | 3,2    | 3,3   |
| 4,1  | 4,2    | 4,3   |

Table 3: Header-less Simple Table

|     |     |     |
|-----|-----|-----|
| 1,1 | 1,2 | 1,3 |
| 2,1 | 2,2 | 2,3 |
| 3,1 | 3,2 | 3,3 |
| 4,1 | 4,2 | 4,3 |

Table 4: Multi-line Table

| Left Aligned                     | Centre Aligned | Right Aligned                            |
|----------------------------------|----------------|------------------------------------------|
| This sentence spans<br>two lines | 1,2            | 1,3                                      |
| 2,1                              | 2,2            | Note the the blank line<br>between rows. |

Table 5: Grid Table

| Default  | Default |
|----------|---------|
| • 0.33,1 | 1,2     |
| • 0.67,1 |         |
| • 1.33,1 | 2,2     |
| • 1.67,1 |         |

Table 6: Piped Grid Table

| Left | Centre | Right |
|------|--------|-------|
| 1,1  | 1,2    | 1,3   |
| 2,1  | 2,2    | 2,3   |
| 3,1  | 3,2    | 3,3   |
| 4,1  | 4,2    | 4,3   |

Table 7: Header-less Grid Table

|     |     |     |
|-----|-----|-----|
| 1,1 | 1,2 | 1,3 |
| 2,1 | 2,2 | 2,3 |
| 3,1 | 3,2 | 3,3 |
| 4,1 | 4,2 | 4,3 |

## Line-block

Prepend a | in each line of the line-block.

This allows new lines without an empty line between each line, which is useful for verses and addresses.

## Raw

```
| An iconic lullaby:
| Twinkle twinkle little star,
| how I wonder what you are.
| Up above the world so high,
| like a diamond in the sky.
| Twinkle twinkle little star,
| how I wonder what you are.
```

## Formatted

```
An iconic lullaby:
 Twinkle twinkle little star,
 how I wonder what you are.
 Up above the world so high,
 like a diamond in the sky.
 Twinkle twinkle little star,
 how I wonder what you are.
```

## Task-list

### Raw

- [x] Done.
- [ ] Not done.

### Formatted

- ☒ Done.
- ☐ Not done.

## Superscripts and Subscripts

Surround literals between ~ for a subscript. Very useful in [chemical formulae](#).

Conversely, surround literals between ^ for a superscript.

### Raw

H~2~O is one of the main reasons to why life exists.

f(x) = Ae^-bx^ describes exponential decay.

### Formatted

H<sub>2</sub>O is one of the main reasons to why life exists.

$f(x) = Ae^{-bx}$  describes exponential decay.

## Line-break

### Raw

\

### Formatted



## Definition-list

### Raw

Term

: This is a definition.

: This is an alternate definition.

### Formatted

**Term** This is a definition.

This is an alternate definition.

## Compiling

I mainly use [ghostwriter](#) and [pandoc](#).

### ghostwriter

- Can choose **Markdown Flavor** and **Style Sheet** for HTML preview.
- Can see **Outline HUD** and **Documents Statistics HUD**; and can use `ctrl + shift + h` to remove or show them.
- Can **Insert Image** by dragging in an image.
- Can **Copy HTML** with `ctrl + shift + c`.
- Can **Export** directly.
- Can use **Distraction Free Mode** with no HUD and no HTML preview.

### Pandoc

- To HTML example snippet: `pandoc src/markdown-guide.md -o build/markdown-guide.html -s --mathjax`.
- To PDF example snippet: `pandoc src/markdown-guide.md -o build/markdown-guide.pdf --pdf-engine=pdflatex`.
- To Beamer example snippet: `pandoc src/markdown-guide.md -o build/markdown-slide.pdf -t beamer -V theme:Luebeck`. Note: Beamer does not like footnotes that take more than the available space (hence make sure that this is satisfied before converting to beamer); also it is best remove any geometry tags and decrease the font size as well.
- `-s` means standalone and not a fragment; e.g. an HTML file with **head** and **body**.
- `-f` and `-t` specifies input and output format respectively (markdown, latex, html), otherwise format is interpreted from file type.
- `--toc` for table of contents; useful with `-c style.css`.
- Make modifications to `latex-template.tex` from `pandoc -D latex >> latex-template.tex`, and then use `--template=latex-template.tex`.

- Can concatenate multiple input files.

## Adding References

1. Add a `.bib` file into a directory, and optionally a `.xcs1` file.
  - [Here](#) is a link in formatting the `.bib` file.
  - [Here](#) is a link for `.csl` files for citation standards.
2. Within your markdown document, append `@` with the unique citation-key declared in the `.bib` file, to add references.
3. Add the `-C` or `--cite-proc` argument when compiling, to process the citations.
4. Add the `--bibliography=<file-name>.bib` argument to specify the path to the file (replace `<file-name>`).
5. Optionally add the `--csl=<file-name>.csl` argument to specify a certain citation style.

## Raw

This is a self reference. [`@self`]

## Formatted

This is a self reference. [1]

## Explore

- Labels
- Images
- [Citations](#)
- Citation Syntax

## References

- [1] P. Aim, “Markdown guide,” 2022. [Online]. Available: <https://github.com/puth2314/markdown-guide>