

Markdown Guide

Puthearath Aim

June 21, 2022

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

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

- 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](#) and [Google](#) hyper-link.

A <https://directlink.tv> and 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"){height=100%}
```

Formatted

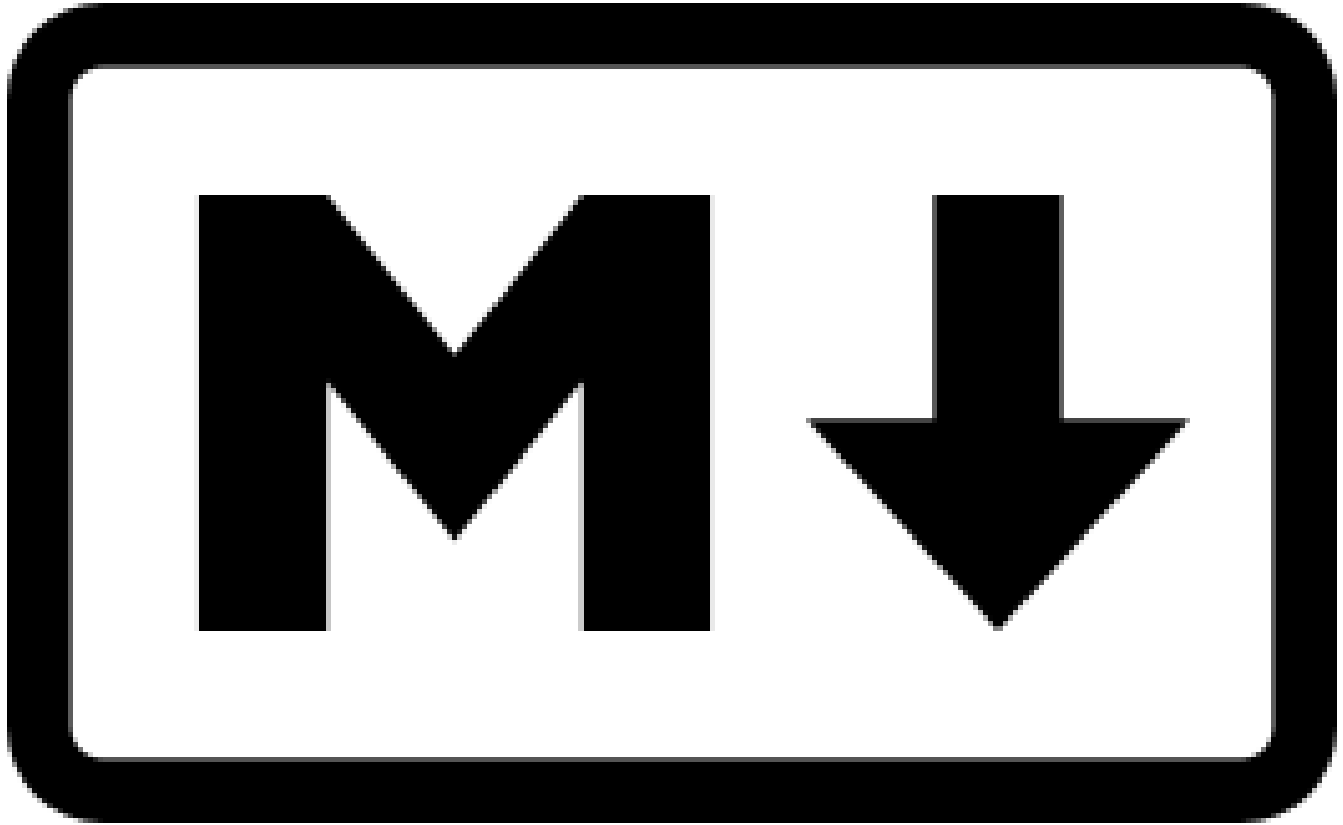


Figure 1: Markdown Icon

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^[^footnote-identifier] with a footnote^[^long-footnote]
and inline^[^You do not have to create an identifier.].

^[^footnote-identifier]: Footnote information.

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

Subsequent indented paragraphs belong to the footnote.

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

Formatted

Text¹ with a footnote² and inline³.

LaTeX

Surround LaTeX code with double \$.

Raw

`$$\frac{some}{69}\cdot\frac{420}{LaTeX}\tag{1}$$`

Formatted

$$\frac{some}{69} \cdot \frac{420}{LaTeX} \tag{1}$$

Tables

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

It is good practice to bold the table headers.

Raw

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

¹Footnote information.

²Footnote with multiple blocks.

Subsequent indented paragraphs belong to the footnote.

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

³You do not have to create an identifier.

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

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
two lines | 1,2 | 1,3 |
| 2,1 | 2,2 | Note the the blank line
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

H₂O 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.

Columns

Raw

```
::: columns

:::: column

Left text.

::::

:::: {.column width=20%}

Right text.

::::

:::
```

Formatted

Left text.
Right text.

Labels

Raw

Reference Figure `\ref{fig:md}`.

```
![Markdown Icon\label{fig:md}](../images/markdown-icon.png "Markdown Icon"){height=70%}
```

Formatted

Reference Figure [2](#).



Figure 2: Markdown Icon

Compiling

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

Most text-editors should have support for markdown. Most IDE's should have plugins to view formatted markdown in real-time.

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 markdown-guide.md -o markdown-guide.html -s --mathjax`.
- To PDF example snippet: `pandoc markdown-guide.md -o markdown-guide.pdf --pdf-engine=pdflatex`.
- To Beamer example snippet: `pandoc markdown-guide.md -o 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 `.cs1` file.
 - [Here](#) is a link in formatting the `.bib` file.
 - [Here](#) is a link for `.cs1` files for citation standards.
 - [Here](#) is a link to edit your own `.cs1` files.
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 `--cs1=<file-name>.cs1` argument to specify a certain citation style.

Raw

This is two self references. [@puth-mdg;@puth-mdg]

Formatted

This is two self references. [1], [1]

References

Otherwise, the references will automatically be appended to the end of the document.

Raw

```
::: {#refs}  
:::
```

Formatted

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

Explore

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