

Markdown Guide

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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

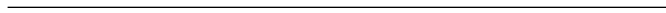
Horizontal rule:

---

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"){ 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}\$\$

Formatted

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

¹Footnote information.

²Footnote with multiple blocks.

Subsequent indented paragraphs belong to the footnote.

code.isNone() == True

³You do not have to create an identifier.

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|
```

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 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.

: 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

Left Aligned	Centre Aligned	Right Aligned
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.

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 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.
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 a self reference. [`@puth-mdg`]

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>