

Markdown Guide

Puthearath Aim

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Welcome to a markdown guide. The aim to provide the general quirks of markdown; intended to be revisited as often as needed. The following syntax is specific for converting to slides.

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 an additional # demotes it to a sub-heading.

Sub-sub-sub-headings and so on always promote to a sub-sub-heading (when converting to slides).

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

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

Also Heading

===

Also sub-heading

Heading

Sub-heading

Sub-sub-heading

Sub-sub-sub-heading

Also Heading

Generic Formatting

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~~`.

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~~.

Unordered Lists

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

```
* Fruits
  - Apples

  - Oranges

    + Orange
    - Green

+ Meat
```

Subsequent indented paragraphs belong to the list element.

- * Dairy

- ...

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

- ...

- Vegetables

- Fruits
 - Apples
 - Oranges
 - Orange
 - Green

- Meat

Subsequent indented paragraphs belong to the list element.

- Dairy

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

- Vegetables

Ordered Lists

1. Uno

2) Dos

3) Tres

4. Cuatro

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

Links

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"

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

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

Images

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

```
! [Markdown Icon] (../images/markdown-icon.png "Markdown Icon") {height=50%}
```

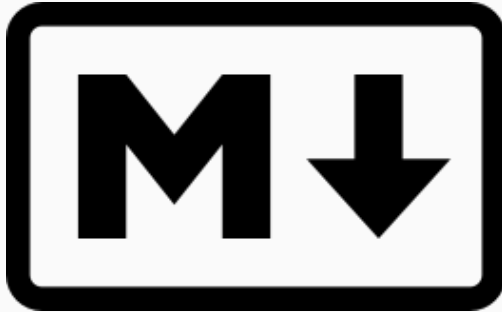


Figure 1: Markdown Icon

Block-quotes

Prepend a > in every line of the block for a block-quote. You can only have one level of block-quote.

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

*Append two space in first line
for a line-break in blockquote.
Second paragraph in blockquote.
Deeper blockquote with additional >.*

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.

```
```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

<Comment>

<!--

Comment

-->

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

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

Footnotes

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

[^footnote-identifier]: Footnote information.

Text¹ with a footnote and inline².

¹Footnote information.

²You do not have to create an identifier.

LaTeX

Surround LaTeX code with double \$.

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

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

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.

| 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

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

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 |

: Simple Table

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 |

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 |

: Header-less Simple Table

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 |

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. |

: Multi-line Table

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. |

Grid Table

: Grid Table

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

Table 5: Grid Table

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

Piped Grid Table

: 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 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 |

Header-less Grid Table

: 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 |  
+----+-----+-----+
```


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.

```
| 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.
```

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

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

☒ Done.

☐ Not done.

Superscripts and Subscripts

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

Conversely, surround literals between ^ for a superscript.

H_2O is one of the main reasons to why life exists.

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

H₂O is one of the main reasons to why life exists.

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

Definition List

Term

: This is a definition.

: This is an alternate definition.

Term This is a definition.
This is an alternate definition.

Beamer Slides

Header-less Content

Header

Content here.

###

Content is also here.

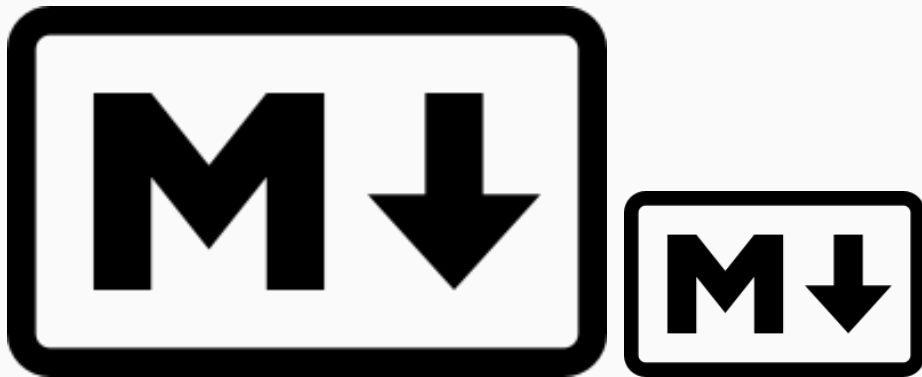
Header

Content here.

Content is also here.

In-line Images

```
! [Markdown Icon](../images/markdown-icon.png "Markdown Icon"){ height=60% }\n! [Also a markdown Icon](../images/markdown-icon.png "Also a markdown Icon"){height=60% }
```



Columns

```
::: columns
```

```
:::: column
```

```
Left text.
```

```
::::
```

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

```
Right text.
```

```
::::
```

```
:::
```


Left text.

Right text.

Labels

Reference Figure \ref{fig:md}.

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

Reference Figure 2.

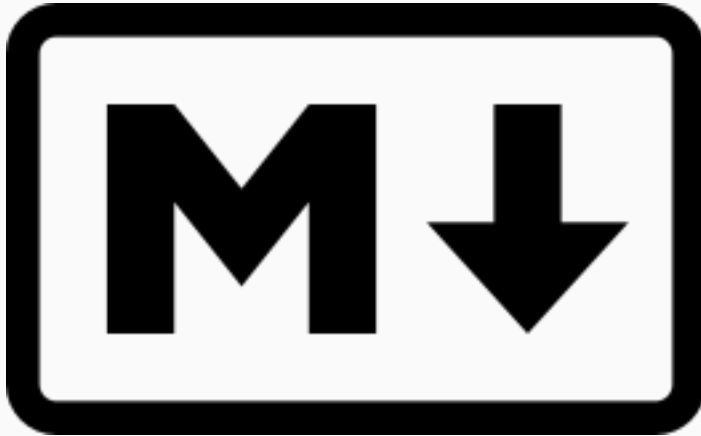


Figure 2: Markdown Icon

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.

- 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.

- 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

Steps

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.

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

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

References

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

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

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

- Labels
- Images
- Citations
- Citation Syntax