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

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

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

Formatted

Heading

Sub-heading
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~~.

Unordered Lists

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

Raw

```
* Fruits
    - Apples

    - Oranges

        + Orange
        - Green

+ Meat

    Subsequent indented paragraphs belong to the list element.
```

Unordered Lists

* Dairy

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

- Vegetables

Unordered Lists

Formatted

- Fruits

    - Apples

    - Oranges

        - Orange
        - Green

- Meat

    Subsequent indented paragraphs belong to the list element.

- Dairy

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

- Vegetables

Ordered Lists

Raw
1. Uno
2) Dos
3) Tres

4. Cuatro

Formatted
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.

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=50% }
```
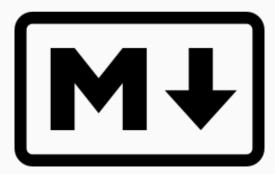
Formatted

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.

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

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

16

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
```
````

Code-blocks

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

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

Code-blocks

Formatted

```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))
```

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

[^footnote-identifier]: Footnote information.

Formatted

Text[1] with a footnote and inline[2].

---

[1] Footnote information.

[2] You do not have to create an identifier.

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|

Table: Pipe Table
```

Tables

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

Simple Table

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
```

Simple Table

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

Header-less Simple Table

Raw

```
----- ------ -----
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
```

Formatted

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

Raw

```
-------------------------------------------------
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
```

Multi-line Table

Formatted

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

Raw
: Grid Table

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

Grid Table

Formatted

Table 5: Grid Table

Default	Default
0.33,1 0.67,1 1.33,1 1.67,1	1,2 2,2

Piped Grid Table

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

Piped Grid Table

Formatted

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

Raw

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

Header-less Grid Table

Formatted

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.
```

Line-block

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 ˆ for a superscript.

Raw

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

f(x) = Aeˆ-bxˆ describes exponential decay.
```

Formatted

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

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

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.

Compiling

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 `.csl` file.
   - Here is a link in formating 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. [@puth-mdg]
```

Formatted

This is a self reference. [1]

Explore

- Labels
- Images
- Citations
- Citation Syntax

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