# Additional Syntax of Markdown for Better Writing

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#### Abstract

This is the test abstract of ducment. This is the test abstract of ducment.

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# 1 Note

because of github markdown preview compatiability, please view this REAMDE.md as raw version

# 2 Definition

Term 1 Definition with lazy continuation.

Paragraph for Term 1 definition. { some code, part of definition }

- bullet 1
- bullet 2

# 3 Latex Equations

```
$$
\text{median} = \begin{cases}
x_{(n+1)/2} & \text{if } n \text{ is odd} \\
\frac{11}{2} (x_{n/2} + x_{n/2+1}) & \text{if } n \text{ is even}
\end{cases}
$$$
```

$$\text{median} = \begin{cases} x_{(n+1)/2} & \text{if } n \text{ is odd} \\ \frac{1}{2} (x_{n/2} + x_{n/2+1}) & \text{if } n \text{ is even} \end{cases}$$
 (1)

# 4 Example

#### 4.1 examples with (@)

- (1) My first example will be numbered (1).
- (2) My second example will be numbered (2).

Some text between examples.

(3) My third example will be numbered (3).

#### 4.2 examples with (@foo)

(4) My first example will be numbered (4).

As you can see, in the (4) examples, the numbering is continuous. You can also refer to them like this: (@foo).

#### 5 list division

You can divide lists (reset ordering number and line spacing) by adding an empty line between them:

```
1. one
2. two
3. three
<!-- -->
1. uno
2. dos
3. tres
```

upper list will be rendered as:

- 1. one
- 2. two
- 3. three
- 1. uno
- 2. dos
- 3. tres

# 6 Highlight

You can highlight text by

```
[text to highlight]{.mark}
```

this is rendered as:

text to highlight

#### 7 Small caps

You can use small caps by

```
[small cap text]{.smallcaps}
```

this is rendered as:

SMALL CAP TEXT

#### 8 Footnote

You can add a footnote like this:

```
Here is a footnote reference, [^1] and another. [^longnote]

[^1]: Here is the footnote.

[^longnote]: Here's one with multiple blocks.

Subsequent paragraphs are indented to show that they belong to the previous footnote.
```

this is rendered as:

Here is a footnote reference, 1 and another. 2

# 9 Code formatting

You can put line number in the code:

```
```py {.numberLines startFrom="1"}
some code
```
```

this is rendered as:

```
import numpy as np

def f(x):
    return x**2
```

you can also chane the color scheme of highlighting by pandoc option:

```
--highlight-style=tango
```

compatiable color schemes are:

- pygments
- kate
- monochrome
- espresso
- zenburn
- haddock
- tango
- breezedark
- breezelight

# 10 Image resizing

```
~/Programming/markdown-to-pdf-report master !2 ?6 ) [
```

Figure 1: test image

<sup>&</sup>lt;sup>1</sup>Here is the footnote.

 $<sup>^2\</sup>mbox{Here's}$  one with multiple blocks.

Subsequent paragraphs are indented to show that they belong to the previous footnote.

```
![test image](./test_image.png){width=80%}
```

You can resize the image by adding {width=value} after the image link. The value can be in percentage or in pixel.

Here's a detailed explanation for each component of the metadata you've provided for your Pandoc markdown:

#### 10.1 reference using .bib file

You can add references using a .bib file. For example, you can add a reference like this:

```
- Some senetence that use reference 1. [@knuth1997art]
- Some senetence that use reference 2. [@website]
```

bib\_file.bib looks like this:

```
@book{knuth1997art,
      title={The Art of Computer Programming, Volume 1: Fundamental Algorithms},
      author={Knuth, Donald E.},
     year={1997},
      publisher={Addison-Wesley},
      edition={3rd},
     address={Boston},
8
   @article{lamport1986document,
     title={Document preparation system: {L}a{T}e{X}},
11
12
      author={Lamport, Leslie},
     journal={Software: Practice and Experience},
     volume={16},
14
     number={6},
     pages={745--765},
     year={1986},
17
     publisher={Wiley Online Library}
18
19
   @inproceedings{lecun1998gradient,
21
     title={Gradient-based learning applied to document recognition},
22
      author={LeCun, Yann and Bottou, L{\'e}on and Bengio, Yoshua and Haffner, Patrick},
23
     booktitle={Proceedings of the IEEE},
24
     volume={86},
25
     number={11},
26
27
     pages={2278--2324},
     year={1998},
28
     organization={IEEE}
29
   }
31
32
   @misc{website,
     author = {John Doe},
33
34
     title = {An Interesting Article},
     year = {2023},
35
     url = {http://www.example.com/article},
     note = {Accessed: 2024-10-10}
```

This will be rendered as:

- Some senetence that use reference 1. (Knuth 1997)
- Some senetence that use reference 2. (Doe 2023)

The references will be listed at the end of the document by using the following code block, and only the references that are cited in the document will be displayed:

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

## 11 Spacing / new page

\vspace{1em} \newpage

- \vspace{1em} adds vertical space equivalent to the height of a lowercase 'm' character.
- \newpage forces a page break.

# 12 example reference

Doe, John. 2023. "An Interesting Article." http://www.example.com/article.

Knuth, Donald E. 1997. *The Art of Computer Programming, Volume 1: Fundamental Algorithms*. 3rd ed. Boston: Addison-Wesley.