

# Thaw Demo

For demonstration purposes we show some of the features *Thaw* has to offer. We begin with a table of contents that is simply included in the text file with #TOC#. The table of contents will be automatically generated from the present headlines.

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## 1 Images

Most likely when you create a document you will have something like charts or other images - depending on the document type - that you want to display. As an example you can see a bird I took a picture of a while ago in Image 1.



**Figure 1:** This is an image of a bird. I don't know which kind, since I am hardly an ornithologist. But it is fun to take pictures of those animals!

## 2 Tables

Tables are mostly tricky to deal with, but Thaw should make it comparatively easy for you. Mostly you will just have to provide a simple *CSV* formatted string or file. In [table 1](#) you will see a table that has been created from just one simple CSV string.

Name	Age	Sex	Weight
<i>John Doe</i>	43	male	78kg
<i>Steven MacDonald</i>	30	male	96kg
<i>Sharon Olsson</i>	28	female	67kg
<i>William Zeus</i>	24	male	72kg

**Table 1:** This is a simple example for a table in a document.

## 3 Enumerations

- Now we certainly will need an example for an enumeration as well
  - This one is that example we are writing about
    - The funny thing is that you just need to use the '-' character to display an enumeration
    - For ordered enumerations we need to apply a simple trick that is shown below this unordered enumeration
1. This in contrast to the above enumeration is an ordered enumeration
  2. That means we are counting instead of just using the same item symbol for the same level all over again
    - a. Of course this works for deeper levels as well
    - b. It will just choose another counting type to have the levels separated visually

## 4 Code blocks

For the coders among you, you can find an example [code block 1](#) in the following lines. If you want to mention something like a variable name in-line with text you can also use in-line code snippets like: `System.out.println`.

```
1 public static void main(String... args) {  
2     System.out.println("Hello World");  
3 }
```

**Listing 1:** A cool caption for my secret code!

## 5 Math typesetting

Apart from those very important features Thaw is able to typeset mathematical expressions. Note that this feature is currently considered experimental as important things like matrices are not working right now. If you just need to typeset simple expressions it should work quite fine! Currently we only support MathML syntax to write expressions. Support for LaTeX syntax is yet to come.

We support two math typesetting types: **Math block** and **in-line math**. In-line means that you can display math expressions in line with text.

### 5.1 Math block

$$\lim_{n \rightarrow +\infty} \frac{\sqrt{2\pi n}}{n!} \left(\frac{n}{e}\right)^n = 1$$

### 5.2 In-line math

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## 6 Citations

Thaw supports automatic citations (using `#CITE, 'KEY, locator=page 124'#)` and reference list generating using the `#REFERENCES#` thingy.

### 6.1 In-text citation example

For this demo document we will cite a paper from Donald Knuth and Michael Plass that we used to implement the line breaking algorithm in Thaw (Knuth & Plass, 1981).

### 6.2 References

Knuth, D. E., & Plass, M. F. (1981). Breaking paragraphs into lines. *Software: Practice and Experience*, 11(11), 1119–1184. <https://doi.org/10.1002/spe.4380111102>

## 7 Some Lorem Ipsum text

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