

An Awesome Project

Writing a project in Typst

Alice, Bob & Chad

Computer Science, CS-xx-DAT-y-zz, 2024

Semester Project





AALBORG UNIVERSITY
STUDENT REPORT

Department of Computer Science
Aalborg University
<https://www.cs.aau.dk>

Title:

An Awesome Project

Theme:

Writing a project in Typst

Project Period:

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Project Group:

CS-xx-DAT-y-zz

Participants:

Alice

Bob

Chad

Supervisor:

John McClane

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21/12-2024

Abstract:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aequi doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut.



AALBORG UNIVERSITET
STUDENTERRAPPORT

Institut for Datalogi
Aalborg Universitet
<https://www.dat.aau.dk>

Titel:

Et Fantastisk Projekt

Tema:

Et projekt i Typst

Projektperiode:

Efterårssemesteret 2024

Projektgruppe:

CS-xx-DAT-y-zz

Deltagere:

Alice

Bob

Chad

Vejleder:

John McClane

Opsalgstal: 1

Sidetal: 11

Afleveringsdato:

21/12-2024

Resumé:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aequale doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut.

Rapportens indhold er frit tilgængeligt, men offentliggørelse (med kildeangivelse) må kun ske efter aftale med forfatterne.

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List of Todos

- Is this word spelled correct? 1
- Alice: Does not flow well, rewrite later. 4
- Bob: I disagree 4
- Bob: Im manually placed on the left 5
- Alice: Notice the blank line in the raw code block. 5

Introduction

This is the introoduction, it has no chapter number, but is just a short introduction to the subject.

Is this word spelled correct?

Chapter 1

Problem Analysis

It is easy to test a layout by providing blind text...

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim aenean sit amet, lacus duis aliquam suscipit adipiscing elit vestibulum ut dignissim. Quam nulla odio, nulla nullam atque. Ut enim sed blandit libero volutpat sed accumsan sit amet. Vivamus magna sed egestas et eget sed fermentum ultricies. Proin sed tincidunt est ut eleifend. Ut pellentesque habitant morbi tristique. Sed ut perspiciatis unde nam libero quis, suscipit tincidunt et amet. Nunc vivamus imperdiet dapibus.

1.1 Basic Syntax

A lot of the syntax is inspired by the Markdown syntax, like **bold** and *emphasised* text. The same goes with lists:

- Item 1
- Item 2
 - A sub-item

And enumerations:

1. Ordered item using a specified number
5. Another ordered item using a specified number
6. Ordered item using the previous number + 1

And even a terms list (like description in LaTeX):

Term Description

This text is a new paragraph and is not attached to the term.

Another term It is possible to have multiple paragraphs on the right-hand side of a paragraph though.

Just nest it in a content block using the `#[]` notation.

The documentation also has a [guide for LaTeX users](#).

1.2 Revisioning

In the `setup/macros.typ` file you'll find macros to control revisions. Use them if you want, or delete / ignore them. The revision can be set in `main.typ` using `#set-revision(n)`.

~~This is removed content for this revision and is highlighted as such.~~ This is added content, highlighted for clarity. Doing both at once is also easy. How ~~is this great~~ great is this!

Removed content in a future revision is not shown as removed yet. I was added in a previous iteration, and show up normally.

These macros can be wrapped in pretty much anything, including chapters, figures and tables.

Alice: Does not flow well, rewrite later.

Bob: I disagree

1.3 Figures

Unlike LaTeX, Typst does not have floats. All figures are placed immediately, or at the top or bottom of the page. The default is immediately, but can be changed with `placement: auto` (or specifically top or bottom)

Labels for figures and headings are denoted by the `<i-am-a-label>` syntax, and referenced with an @ sign.

In Section 1.3 we show how figures work, specifically Table 1.1.

Name	Age
Alice	25
Bob	28
Chad	24

Table 1.1: I am placed is put in the document, and may cause bad page breaks.

There are even functions to load data from various file formats including CSV and JSON or even plain text files¹.

1.3.1 Subfigures

Write subfigures using `subfig`, which uses the `subpar` package internally (see `macros.typ`).

These can be individually referenced as Figure 1.1a, Figure 1.1b and Figure 1.1.

First image goes here
(a) The subcaption

Second image goes here
(b) The second subcaption

Figure 1.1: A figure composed of two sub figures.

content
Figure 1.2: yess

1.4 Citing

The citation style is determined by the `bibliography()` command in `main.typ`².

Citing works the same as referencing, by using @. [1] It's also possible to add a supplement to the source using `@source[supplement]` notation. [1, pp. 10]

¹<https://typst.app/docs/reference/data-loading/>

²<https://typst.app/docs/reference/model/bibliography/>

We can also change the citation style using the `#cite()` command:
 ... This has been shown by A. Einstein [1].

1.5 Math

The math syntax is fundamentally different from its LaTeX counterpart. We can make inline math $a^2 + b^2 = c^2$.

And blocked equations by adding spaces in the $\$$ notation, as seen in Equation (1.1).

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2 \cdot a} \quad (1.1)$$

1.6 Listings

Typst has builtin support for raw code blocks with syntax-highlighting.

These can be placed as is:

This is ``typst`` source code.

This means that **`*bold*`** is `_highlighted_`, and
`#show: block`
 are also highlighted as expected

Or inside a figure:

```
fn main() {
  println!("Hello, World!");
}
```

Listing 1.1: A piece of Rust code.

1.7 A note on todonotes

The `todo` macros attempts to mimic the `todonotes` package for LaTeX. It is not perfect, but it works in most scenarios.

Please note 4 or more notes in a row will give a compiler warning (if they overlap), as the Typst compiler tries to move the notes and eventually gives up. You can either ignore the warning (at some point the notes will just be placed immediately and overlap), or move the notes around using the `side: (left | right | auto)` argument.

Bob: I'm manually placed on the left

Alice: Notice the blank line in the raw code block.

Conclusion

If you find any bugs in the theme (or have a great suggestion for improvement), please submit it on <https://github.com/Tinggaard/classic-aau-report/>.

References

- [1] A. Einstein, "Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]," *Annalen der Physik*, vol. 322, no. 10, pp. 891–921, 1905, doi: <http://dx.doi.org/10.1002/andp.19053221004>.

Appendix A

Scripting

Generally, the docs are really great. For scripting specifically, see <https://typst.app/docs/reference/scripting/>.

There is also a table guide as they are really extendible.