Writing in the Major Lab (CS 296)

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Contents

Abstract

This document describes basic tools and elements of LaTeXone needs to start working on a paper. Many elements of the style are specified in the SIGPLAN class file(SIG) and LaTeXfundamentals are described in the *Learn LaTeXin 30 minutes* on Overleaf(Lea).

1. Tools

1.1 tex-live

You are going to need `tex-live` package to work with LaTeX. `tex-live` is a multi-platform TeXdocument production system (TeX). It comes packed with various tools and you may use command line to compile your file, but you can also use GUI tools like *TeXShop* (macOS), *Kile* (multi-platform), *Texmaker* (multi-platform), or *LaTeX Workshop* for *VS Code*.

```
sudo apt install tex-live
```

1.2 Kile

Kile is an IDE for LaTeXthat allows you to compile, convert, and preview your document(Kil).

```
sudo apt install kile
```

1.3 LaTeX Workshop for VS Code

If you prefer *VS Code* to write code, install the *LaTeX Workshop* extension to write your LaTeX, build (compile) it, and generate (preview) the resulting PDF.

1.4 Lucid chart

While professional tools like *OmniGraffle* (macOS) or *Visio* (Windows) are usually used to create diagrams, *Lucid chart*(Onl) should be sufficient for the purposes of this paper and it is free. You should not include photos in your paper but rather draw diagrams and generate charts[1].

2. Structure

The main goal of this course if for you write a scientific paper while using proper tools and methods. Your paper is going to be a survey/review of existing sources and should not exceed 5 pages.

Sections of the paper should include at least the following sections:

- Introduction
- History of the subject
- Prominent features
- Conclusion
- References

[1] Use *Excel* or *Spreadsheets* for charts

ISBN [to be supplied]. . . $15.00
DOI: http://dx.doi.org/10.1145/

3. Timeline

You are expected to stick to the schedule specified on KATIE1.

4. Advanced elements

4.1 Math

Your paper may include mathematical formulas. They can appear *inline* (e.g. $i^2 = -1$ or $E = mc^2$) or in *display* mode.

$$F = G\frac{m_1 m_2}{r^2} \tag{1}$$

or

$$a^2 + b^2 = c^2$$

4.2 Code

An easy way to include code is to use package `listings` and have your code in a separate file. Other options (e.g. package `minted`) are acceptable too but may require additional tools.

```
def hello():
    print("Hello, Panda!")
```

You can also include code in the body of your document.

```
def hello():
    print("Hello, Panda")
```

4.3 Image

An image1 or a chart can be inserted into the document.

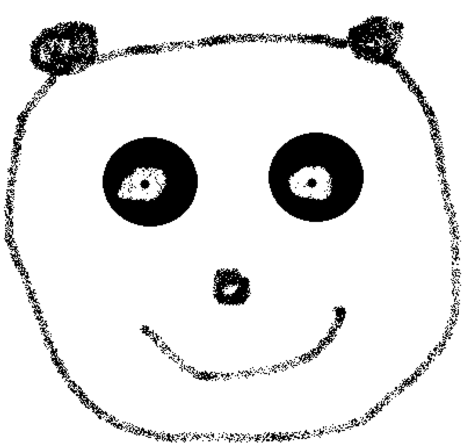

Figure 1. Panda

4.4 Fancy text

Text reflected horizontally. Text reflected vertically.

References

Sigplan latex class file. https://www.sigplan.org/Resources/LaTeXClassFile/. (Accessed on 10/22/2019).

Learn latex in 30 minutes - overleaf, online latex editor. https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes. (Accessed on 10/22/2019).

Tex live - tex users group. https://www.tug.org/texlive/. (Accessed on 10/22/2019).

Kile - an integrated latex editing environment. https://kile.sourceforge.io/. (Accessed on 10/22/2019).

Online diagram software & visual solution — lucidchart. https://www.lucidchart.com/pages/?noHomepageRedirect=true. (Accessed on 10/22/2019).

Appendix A

Task	Week
LaTeXseminar	1
Select a topic	1
Meet the librarian	2
Identify the sources	2
Outline	3
First draft	4
Meet the instructor	6
Final draft	7
Presentation	8

Table 1. Tentative schedule