Introduction to LaTeX

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December 28, 2019

How do we write a document?

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- Deciding **what** the content **should be**. . .
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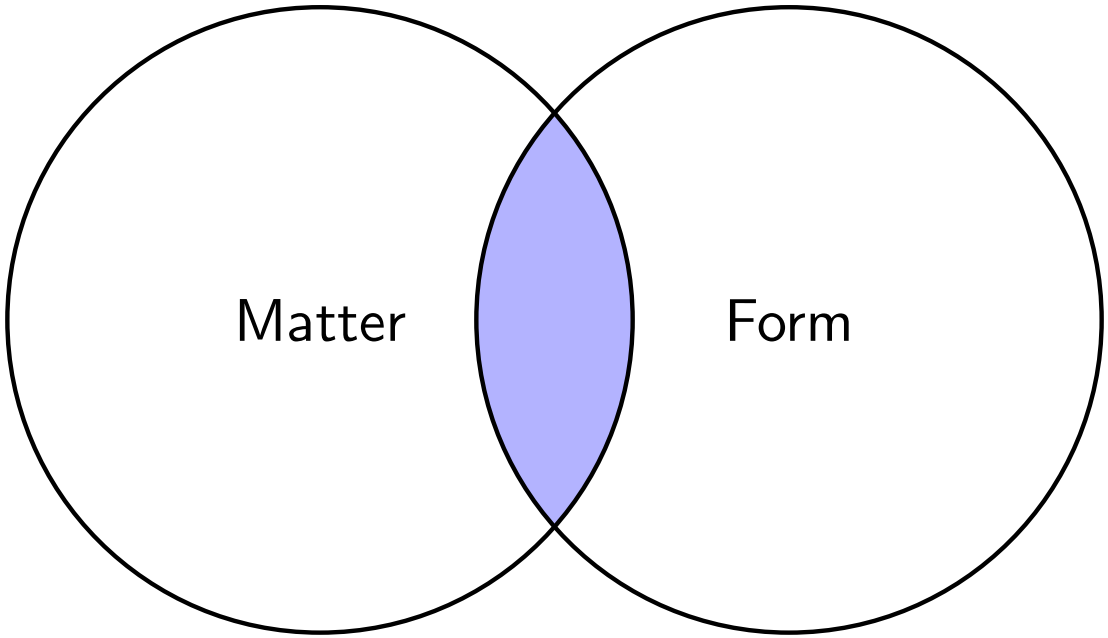

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MS WORD!

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How should we typeset?

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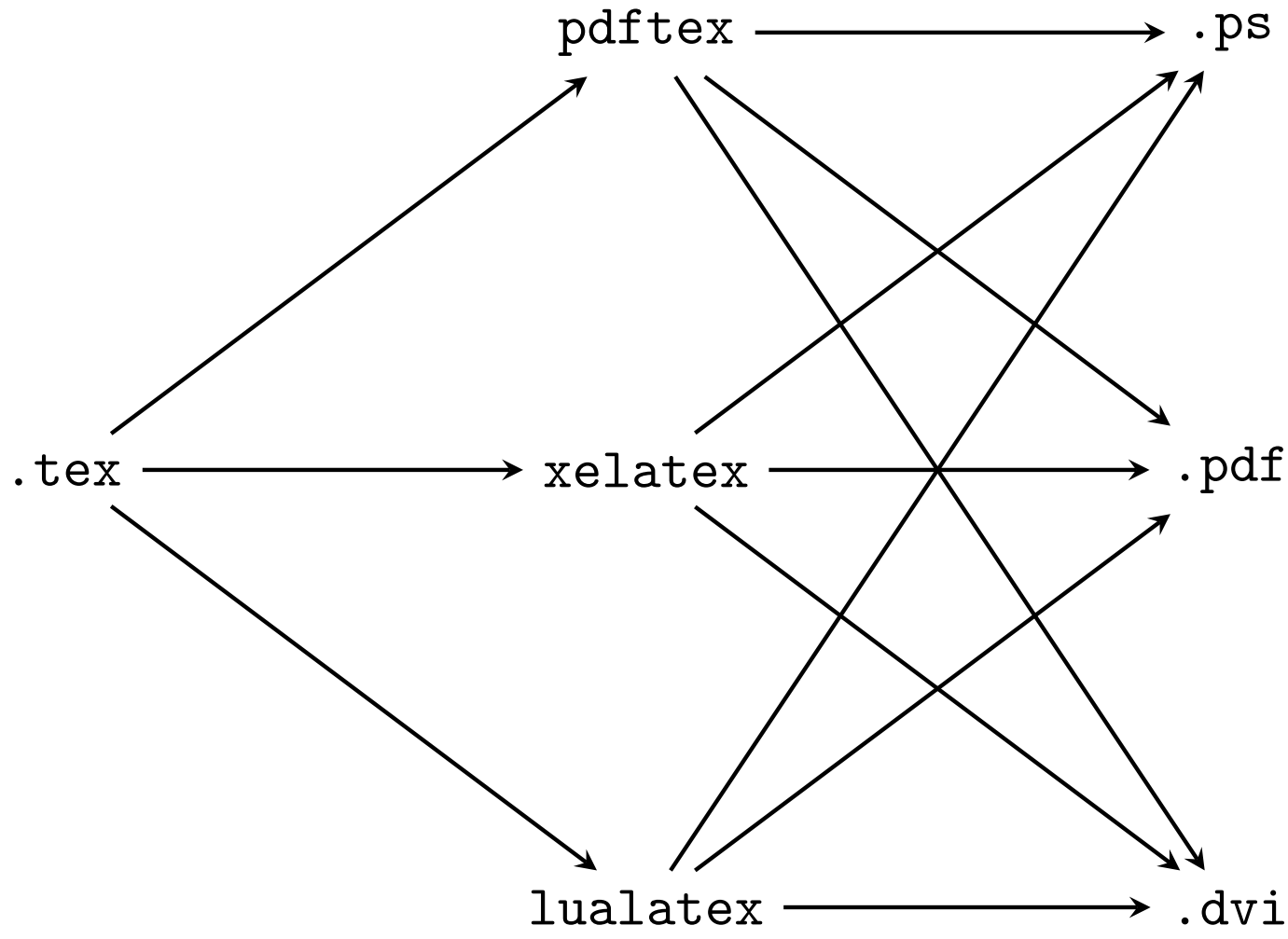
What is LaTeX?

- A type-setting system.
- An improvement over TeX.
- Not a WYSIWYG editor.
- Uses simple plaintext.
- LaTeXprovides the user with a set of pre-defined templates.

How do I use LaTeX?



Source Code **LaTeX engine** **Final Output**

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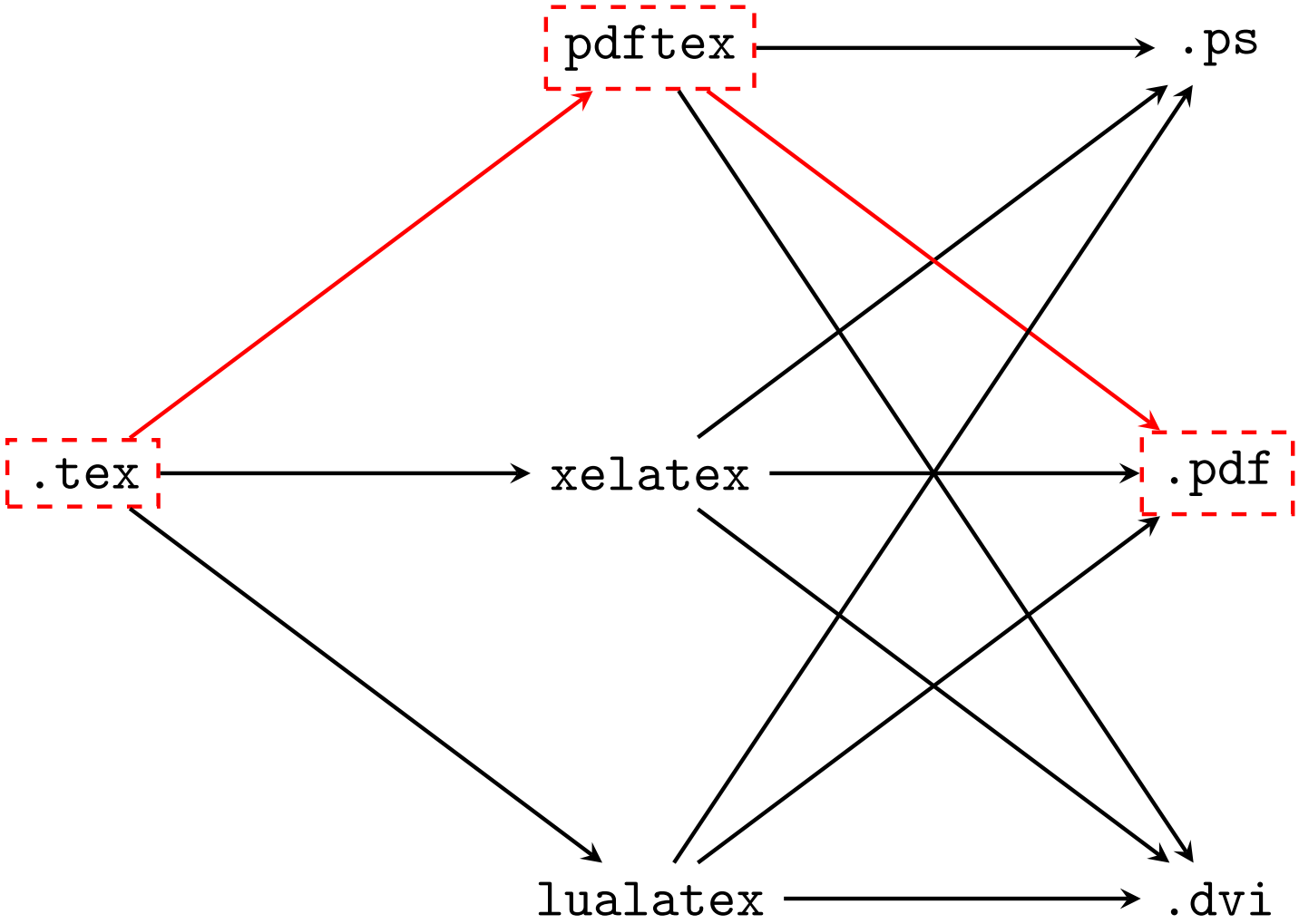

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How do I use LaTeX?

There are multiple TeXengines:

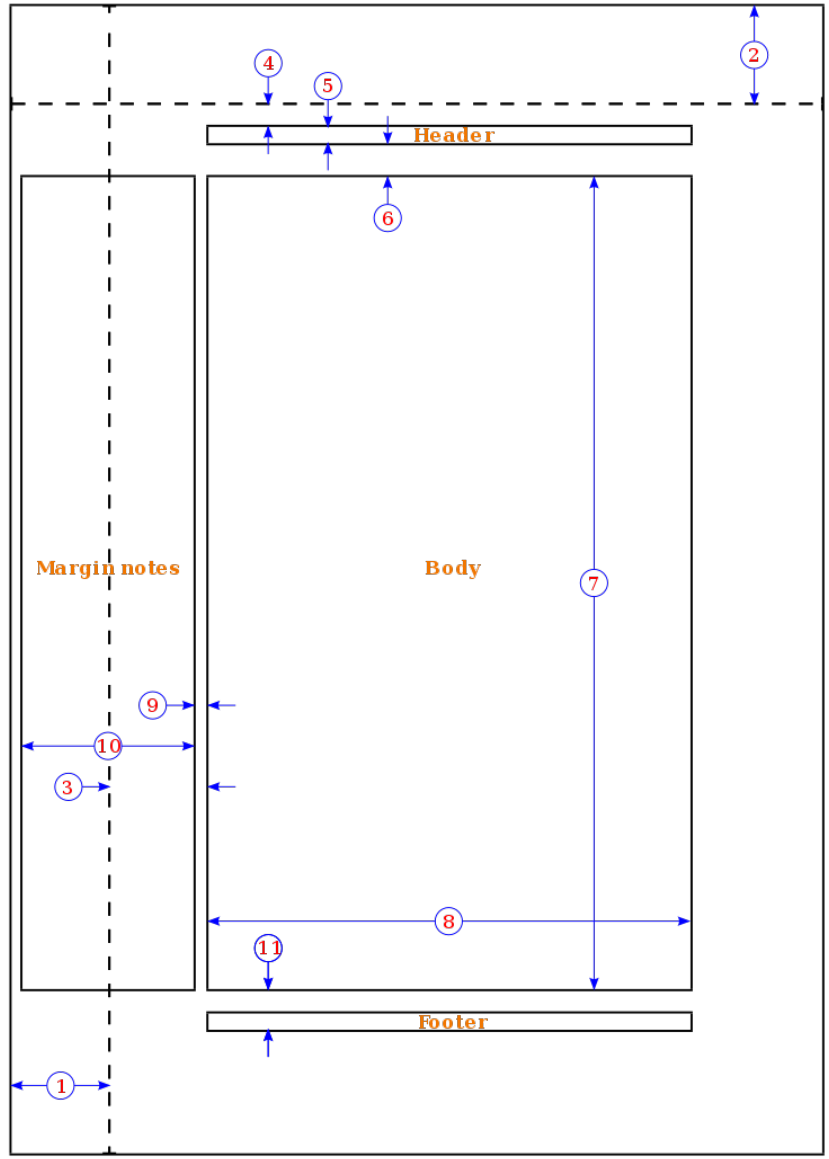
- **Knuth's** TeX:
  This is original TeXengine which serves as the lowest layer of LaTeX's software architecture.
- `pdftex`:
  This engine adds a bunch of primitives related to the PDF and DVI extension.
- `xetex`:
  This engine provides better font support.
- `luatex`:
  Originally, meant to replace `pdftex`, but, now moving in a very different direction. This engine also better font support (like, `xelatex`) through Lua code.

Structure of LaTeX source file.

```
1  \documentclass{article}
2
3  \usepackage{hyperref}
4
5  \title{A critical analysis of Naruto: the Manga}
6  \author{Tejas Sanap}
7
8  \begin{document}
9          \maketitle
10
11 \end{document}
```

Page Geometry

4. \topmargin
7. \textheight
8. \textwidth
11. \footskip



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A few of the most common environments we see are:

- `align`.
- `figure`.
- `equation`.
- `document`.