Introduction
Basic Structure of a Document
A few words on references management

A Quick Introduction to LaTeX

TGIF

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What is LATEX ?

LATEX is a document markup language dedicated to the production of scientific documents.

Distinction TEX/LATEX

TEX is a markup and programming language created, in 1977, by Donald Knuth in the hope that he could reverse the trend of deteriorating typographical quality that he saw affecting his own books and articles.

LATEX is a macro package based on TEX created, in 1985, by Leslie Lamport (hence the name) to simplify TEX typesetting, especially for documents containing mathematical formulae.

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Why use LATEX ?

- advantages
  - typographical quality
  - writing of mathematical formulae
  - systematic numbering of tables, figures, equations, ...
  - easy management of bibliographical references
  - it forces you to structure your document
- drawbacks
  - takes some effort to learn how to use it
  - not WYSIWYG (What You See Is What You Get)
  - co authors have to use LATEX
  - no grammar check

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how to instal LaTeX ?

1. Install a TeX distribution
   - Windows : Miktex or Texlive
   - Mac OS : MacTex
2. Install an interpreter for the PostScript language (ex : Ghostscript and Ghostview)
3. Install an editor for developing LaTeX documents
   - Windows : TexnicCenter, WinEdt, Texmaker
   - Mac OS : Texshop, Texmaker

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Where to find help ?

On the web :

- A (not so) short introduction to LATEX2
  www.ctan.org/tex-archive/info/lshort/english/
  lshort.pdf

- TEX FAQ
  http://www.tex.ac.uk/cgi-bin/texfaq2html?
  introduction=yes

Don't forget : Google is your friend !

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Overall structure

1. Define the type of document (article, report, book, beamer, ...)

   \documentclass{article}
   \documentclass{report}
   ...

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   ```
   \documentclass{article}
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2. Add useful extensions (math writing, accents, ...)

   ```
   \usepackage[T1]{fontenc}      % accents
   \usepackage{amsmath}          % elaborated math formulae
   \usepackage{eurosym}          % euro symbol
   \usepackage{setspace}         % vertical spacing
   ...
   ```

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3. Write your document

   ```
   \begin{document}
   YOUR TEXT
   \end{document}
   ```

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structuring the document

```
   \section{title of your 1st section}
    \subsection{title of your 1st subsection}
...
    \subsection{title of your 2nd subsection}
...
      \subsubsection{title of your 1st subsubsection}
...
  \section{title of your 2nd section}
...
```

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formating the text

- Font size
  \tiny{Tiny}

  \small{Small}

  \Large{Large}

  # \Huge{Huge}

- And also...
  \textbf{text}, \textit{text}, \textcolor{color}{text}

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A few examples

- An article
  D:/TGIF/sfer/paper_sfer.tex

- A beamer presentation
  D:/TGIF/TGIF.tex

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Bibtex Files

- extension .bib

- contain all your references for the document

- can be synchronized with your reference manager (Mendeley)

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LATEX commands

- you call the reference in the text
  \citet{ref1}
  or
  \citep{ref2}

- you choose your bibliography style
  \bibliographystyle{erae}

- you create your bibliography
  \bibliography{name of bibtex file}