# Setting Font, Language and Typography

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## Accented letters and font encoding

For languages like French, for which accented letters are widely used, the LATEX user must be cautious:

- if compiling with *latex* or *pdflatex*,
  - the inputenc package must be used to be able to typewrite direcly accented letters from the keyboard,
    - with inputenc é and à are correct,
    - without the package the user must write \'{e} and \`{a},
    - the encoding must be provided as an optional argument (utf8 is encouraged),
  - the fontenc package to enable the correct hyphenation rules depending on font encoding
    - the font type must be provided as an optional argument,
    - T1 is recommended for both English and French,
- if compiling with xelatex or lualatex,

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- if compiling with *latex* or *pdflatex*,
- if compiling with xelatex or lualatex,
  - the fontspec package must be used to enable the rich font management,
    - accented letters can be directly typewritten,
    - the font can be selected without using another package.

#### Font selection

For clarity and readability, original or artistic fonts should be avoided. A common font was *Computer Modern*, modernised by the *Latin Modern* font. However, both have been extensively used, so that some people consider them boring.

Depending on the compiler:

- for latex and pdflatex compilation,
  - selection is made by calling the corresponding package,
  - Latin Modern is loaded by the lmodern package,
- for xelatex and lualatex compilation,
  - selection is performed through the fontspec package,
  - advanced options regarding the ligatures can be passed to the package.

## Selecting the language

There are two efficient packages for selecting a language and load the typographical rules of the language:

- 1 babel, which works with LaTeX, LuaLaTeX and XeLaTeX;
- 2 polyglossia, which was espacially made for XeLaTeX but also works for LuaLaTeX.

It is possible to create multilingual documents:

- with babel
  - languages are loaded with the package options,
  - the main language is specified with the main= identifiers in the options,
  - the user can locally change the language with the selectlanguage command or the otherlanguage environment

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  - languages are loaded with the package options,
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  - the user can locally change the language with the selectlanguage command or the otherlanguage environment,
- with polyglossia
  - languages are loaded with specific commands in the preamble,
  - the user can locally change the language with the (lang) environment (e.g. french),
  - babel commands are also available for compatibility.

#### Packages order

Summary of the packages which must be loaded, observing the following order:

- for latex and pdflatex compilation,
  - 1 Imodern (or any other package relative to font selection),
  - 2 inputenc,
  - 3 fontenc,
- for xelatex and lualatex compilation,
  - fontspec.