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LaTeX report template

Description of the LaTeX template for IMT Atlantique reports

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Contents

1 Project creation and compilation

1.1 Project creation

In order to use this template, create a new directory, and copy into it the following files:

- `imta.tex`: this file declares all the data that composes the template.It needs to be included to the main document, by calling `\include {imta}`.
- `titlepage.pdf`: the title page of the document.It is a blank version of the IMT Atlantique report template, over which an overlay title is written by the `\imtaMaketitlepage` command.

Your document should be a `.tex` file, with the following skeleton:

```
\documentclass{article}

\include{imta}

\author{Author name}
\date{Writing date}
\title{Document name}
\subtitle{Short description or subtitle}

\begin{document}

\imtaMaketitlepage

\section{First section}

...

\end{document}
```

1.2 Compilation

This template is intended to be compiled with `pdflatex`. Furthermore, it makes use of the `minted` package. As a consequence, the compiler needs to be passed the `-shell-escape` flag. In addition, as usual when wishing a table of contents, the main document should be compiled twice, so as to make sure that the references refer to the right labels. If your main document is called `main.tex`, use the following command to compile it:

```
$ pdflatex -shell-escape main.tex
```

2 Packages

This template uses a number of packages, with specific options. Besides, some packages are further configured, through specific commands. These can be found in the source code itself, at the `PACKAGES SETTINGS` section. The following is an abstract from the `PACKAGES` section of the `imta.tex` file.

```
\usepackage[a4paper, margin=2cm, top=3cm]{geometry}
\usepackage{graphicx}
\usepackage{float}
\usepackage[T1]{fontenc}
\usepackage[utf8]{inputenc}
\usepackage{pdfpages}
\usepackage{fancyhdr}
```

```
\usepackage{minted}
\usepackage{tikz}
\usepackage{titling}
\usepackage{anyfontsize}
\usepackage{mdframed}
```

2.1 anyfontsize

The `anyfontsize` package allows picking an arbitrary size for a local font. It provides the `\fontsize` command, used for generating the title page inside of a `tikzpicture` environment.

2.2 fancyhdr

The `fancyhdr` package lets define custom headers and footers. For instance, the IMT Atlantique header and footer style is defined as follows (inside of the `\imtaSetIMTStyle` command):

```
\pagestyle{fancy}                           % Select the fancy style provided by fancyhdr

\fancyhead{}                                % Clear the current header style
\fancyfoot{}                                % Clear the current footer style

\fancyhead[L]{\nouppercase\leftmark}        % Define the content of the header:
                                            %     the current section title, on the left
\fancyfoot[R]{\thepage}                     % Define the content of the footer:
                                            %     the current page number, on the right

\fancypagestyle{imtaFirstpage}{%            % Define the style for the first page
    \fancyhf{}                              % Clear the current style
    \renewcommand{\headrulewidth}{0pt}      % Clear the horizontal rule under the header
}
```

2.3 float

2.4 fontenc

2.5 geometry

2.6 graphicx

2.7 inputenc

2.8 mdframed

2.9 minted

2.10 pdfpages

2.11 tikz

2.12 titling

3 Commands

This template provides a handful of new commands.

3.1 Generic commands

3.1.1 Metadata commands

This template defines a `\subtitle` macro, that receives the subtitle of the document. The latter will be displayed on the title page. The purpose of this macro is to provide a consistent way of defining a subtitle, with regard to the `\title`, `\author`, and `\date` standard macros. It takes a single parameter, that is the subtitle to display.

3.2 `imta` commands

3.2.1 Typeset inline code with `imtaInlinecode`

3.2.2 Output the title page with `imtaMaketitlepage`

3.2.3 Answer questions with `imtaQuestion` and `imtaQuestionReset`

The `\imtaQuestion` command outputs and formats a question counter. It's meant to be used in reports for assignment with questions. The counter should be reset with the `\imtaQuestionReset`. The output is as follows:

Question 1

Answer to first question

Question 2

Answer to second question

Question 1

Answer to first question of the second section

And the corresponding code:

```
\imtaQuestion
Answer to the first question

\imtaQuestion
Answer to the second question

\imtaQuestionReset

\imtaQuestion
Answer to the first question of the second section
```

4 Environments

4.1 Generic environments

4.1.1 Typeset code listings with `imtaCode`

```
1 int a = 5;
```

4.2 `imta` environments

5 IMT Atlantique styling

The official IMT Atlantique styling is not really LaTeX-ish, and takes the decision to use a sans-serif font for body text. Therefore, I chose to use the default LaTeX font settings, which look much more professional. Of course, this style does not suit the official report style. Thus, I decided to provide a command that enables that official style.

The main aspects of the official style are:

- Use of the Helvetica font for the body;
- Section titles in green (`\imtaGreen`) and other heading titles in gray (`\imtaGray`);
- Section title in the header;
- Page number at the right corner of the footer.

For comparison, the default style of the template is:

- Use of the default Computer Modern font for the body;
- Default style for headings: all in black;
- Document title at the left corner and author's name at the right corner of the header;
- Page number at the center of the footer.

The official IMT Atlantique style can be toggled with the `\imtaSetIMTStyle` command. Since it makes use of the `\usepackage` macro, it needs to be called in the preamble. No way is provided to disable later in the document the official style. As a consequence, you cannot have half of the document with the official style, and the other half in the default style.