Guide for `thesisdtetiugm` Class File

Introduction to `thesisdtetiugm`

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Introduction

Why thesisdteti?

- LaTeX is based on the idea that it is better to leave document design to document designers, that is the community maintaining thesisdteti class file.
- Authors should focus only with the writing of the documents.
- Open source class file allows everyone, including authors, to contribute back and improve the class file.

thesisdtetiugm is available at GitHub repository (here). Altough it is more recommended to use Git to stay updated, a static .zip file is available (here).

Document Class

Document Class Options

Default Setting

\documentclass[master,bahasa,table,xcdraw]{thesisdtetiugm}

Setting Options

- <bachelor/master/doctoral>: degree
- <bahasa/english>: language
- <table>,<xcdraw> (optional): supports coloring table

External Files

input **and** output

\input

The \input{PATH/TO/FILENAME.tex} inserts valid LaTeX code from the specified file.

\include

The \include{PATH/TO/FILENAME.tex} inserts valid LaTeX code from the specified file by inserting on different page. \include allows the use of \includeonly to specify list of file that will be included upon rendering.

Figures

Using \includegraphics

\includegraphics[width=10cm]{images/sample-fig.png}

Setting \includegraphics

- <width=WIDTHcm> (optional): adjust the width of the image
- <FILE_NAME>.ext: the extension supports various type such as .png, .jpg, and even .pdf.

It is more recommended to not using both <height> and <scale> parameters. Stick with known <width> or page area for the images and let the document decides the height. Alternatively, not using any parameter is also possible to let LaTeX decides the resize.

Codes

Using \lstinputlisting

```
\lstinputlisting[%
  language=Python,%
  caption={CAPTION \textit{SUPPORT ITALIC}.},%
  label={lst:FILE_NAME}]%
  {codes/FILE_NAME.py}
```

Equations

Using a Custom Function of `\inputeq`

`\inputeq` is a custom command to import equation from separate file. The downside of this function is it uses multiple calls of open, read, and find to look for the equation, making the compilation slightly slower but almost negligible. Read `main/equations/equations.tex` for the detail of the syntax in creating your own `equations.tex` file.

Syntax for `\inputeq`

`\inputeq{equations/equations}{miqp-obj}`

Tables

Default Table

Table 1: Tabel Tinggi Berat

ID	Laki-laki		Peremp...
	Tinggi Badan (cm)	Berat Badan (kg)	Tinggi Badan (cm)
A23	173	62	173
A25	185	70	185
A10	162	78	162
Total	520	210	520

Clean Table

Can be seen in Table 2.

Table 2: Tabel Tinggi Berat 2

ID	Laki-laki		Perempuan	
	Tinggi Badan (cm)	Berat Badan (kg)	Tinggi Badan (cm)	Berat Badan (kg)
A23	173	62	173	62
A25	**185**	70	**185**	70
A10	162	**78**	162	**78**
Total	520	210	520	210

Table Cotrol and Commands

- \begin{table}[LOCATION] to create a table environment that support auto placement based on [LOCATION]. The [LOCATION] can be selected from [h], [b], and [t] for here, bottom of page, and top of page, or combination of that (such as [bt]).
- Use \hline to make horizontal line and \cline{START-STOP} to make horizontal line from column START to STOP. Alternatively, use \toprule for top line, \midrule for lines between rows, \cmidrule for partial lines between rows, and \bottomrule for bottom line.
- To control allign, use l, r, or c to make it allign left, right, or center. Alternatively, use the capital L, R, or C to also support auto wrap under tabulary.
- Use \multicolumn{NCOLUMNS}{ALLIGN} to merge columns or rows repectively

tabular **vs** longtable **vs** tabulary **vs** ltabulary

- tabular: Default table.
- longtable: tabular with multiple pages support for table with many rows and ability to iterating column header for multi pages table. The downside is that it can't be controlled with auto placement such as [b] and [t].
- tabulary: tabular with support for auto warp text using capital letter for column (LRC). The width of the table can be maximized using \textwidth with automatic column width adjustment based on centent width.
- ltabulary: Custom package that combines longtable and tabulary, that is support of multiple pages and auto wrap.

Numbering

itemize **vs** enumerate

itemize

Bullets. Use \begin{itemize} ... \end{itemize}.

-
-

enumerate

Numbers. Use \begin{enumerate} ... \end{enumerate}.

1.
2.