LaTeX modules

Ch1. What is latex ?

- It's a tool for typsetting professional-looking documents.
- Unlike word or other GUI based typsetting softwares type commands to get desired outputs.

(Latex Commands)

- A Tex engine compiles your document then you see it.
  (Tex takes care of visualization to put in a pdf form)

Ch 2. Why learn Latex :

- Useful for equation, tables, technical content, etc.
  (for sciences)

- easier for footnotes, bibliographies, indexes table of contents, list of figures.

- very customizable based on free add-on packages.

- Style can be changed with ease. templates in latex can be defined based on application because of layout/style.
  (templates are document style/layout types.)

ch3. Writting your first piece of Latex.

ex) (First project in overleaf

```
\documentclass{article}
\begin{document}
First document. This is a simple
example, with no extra parameters
or Packages included.
\end{document}.
```

- Latex can also cover indenting like first sentences of our paragraph (example of taking care of formatting)

- \documentclass{article}, declares document type known as its class.

- Each document types require different class.

- To know latex class types look into CTAN (Comprehensive Tex Archive network)

- The body of the document is between \begin{document} and \end{document} tags.

- Recomplile is just button to press to compile tex documents after you make edits.

- An overleaf project can be configured to recompile automatically each time its edited,

- Steps for automatic Recompile:

1.) Click small arrow next to recompile.

2.) Then set AutoCompile to on.

- Next we give a document

a title so next thing is to give it a title.

Ch4. The Preamble of a document:

- Each project has a main tex file. Used for storing in Overleaf.

- .tex extension is used when naming files containing your documents LaTex code.

- everything Latex commands before \begin{document} is called preamble in tex file.

- This is called document "setup" section?

- This is where you define class (Type) document, languages, packages you would like to use, and other types of config like fonts.

ex) (document minimal preamble)

\documentclass[12pt, letterpaper]{article}
\usepackage{graphicx}

- The overall class type is defined first. Additional parameter like word size, paper size in the article class.

- In previous example 12pts sets the font size.
- letter paper sets the paper size.

- \usepackage{graphicx} is an example is a package to define to import graphics images.

Ch5. Including title, author and date information: