How to start LaTeXing

In my opinion...

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Outline

Basic Structure of LaTeX

- Basic structure of a LaTeXfile looks like this $\Longrightarrow$
- Comment starts with %
- Preamble: puts everything that one do not expect to be seen on a document. (Compare: `import` in Python, Java.)
- Packages and Classes.
  - Packages = tools to create symbols.
  - Classes = Templates in Word, Structure of the document.

```
\documentclass{...}
% Preamble
\begin{document}
...
\end{document}
```

Beamer

- Available online: ▸ Github Beamer

Beamer

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- Open and Compile

Beamer

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- Read the comments and modifies.
- Again and again.

Compile Procedure

- C:
  - Code (*.h) $\rightarrow$ linking (*.o) $\rightarrow$ Program (*.exe)
- LaTeX
  - Code (*.tex) $\rightarrow$ Auxiliary file $\rightarrow$ PDF (*.pdf)
  - Compiler: LaTeX, XeLaTeX, LuaLaTeX.

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- Understanding **PATH**
  - Relative v.s. Absolute path
  - `PATH` variable

Read Commands

- Understand Meanings:

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  `\textbackslash` **`\phantom`**

- Guess Abbreviations
  - Msg
  - Ctrl, Prt, Bf, Err...
  - \vskip, \vphantom.
  - Bib (bibliography)

Err Msg

1. Always Write & Compile & Check
2. Line number is important information, but is occasionally useless.
3. First Error is the most relevant one.
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2. Line number is important information, but is occasionally useless.
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4. Undefined Control Sequence
5. Err msg is sometimes unreliable, READ your code!
6. Produce **Minimal Working File** with Commenting!
   - Ctrl+T on TeX Studio

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  - Structure: begin, end.
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- Reserved Keywords:
  - Everything starts with \
  - \\, &, Non-ASCII

Programmer Tools

- IDE: TeX Studio, Vim.
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- Online Editor: ShareLatex and Overleaf.

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  - **Snippets**: TeX Studio, Vim, AutoHotkey, etc.
- Source Code Management: Git
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LaTeX Sucks

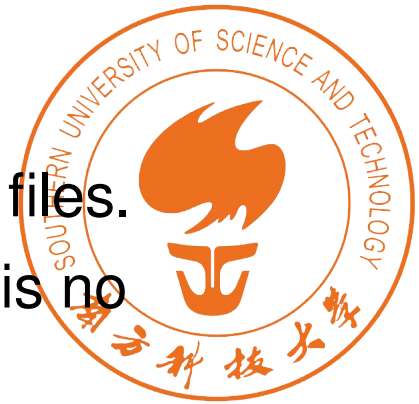
- Bad Programmer writing LaTeX codes.
- Everything expects an argument:
  LaTeXs

  ```
  \LaTeX s
  ```

  is different from
  LaTeX s.

  ```
  \LaTeX{} s
  ```

- Compile it **AGAIN**, esp. containing bibliography files.
- Horrible Auxiliary files: delete them when there is no Minimal working file.



Getting Resources

- Google is always your best choice.
  - And information on WikiBooks, StackExchange & ShareLatex are excellent.
  - E.g.: "Quotation mark" in LaTeX.
- CTAN: Comprehensive TeX Archive Network, containing almost all possible packages.
  - E.g.: Physics Packages
- GitHub: modern codes online
  - E.g.: Beamer on GitHub.

The End

What do u have in mind?