

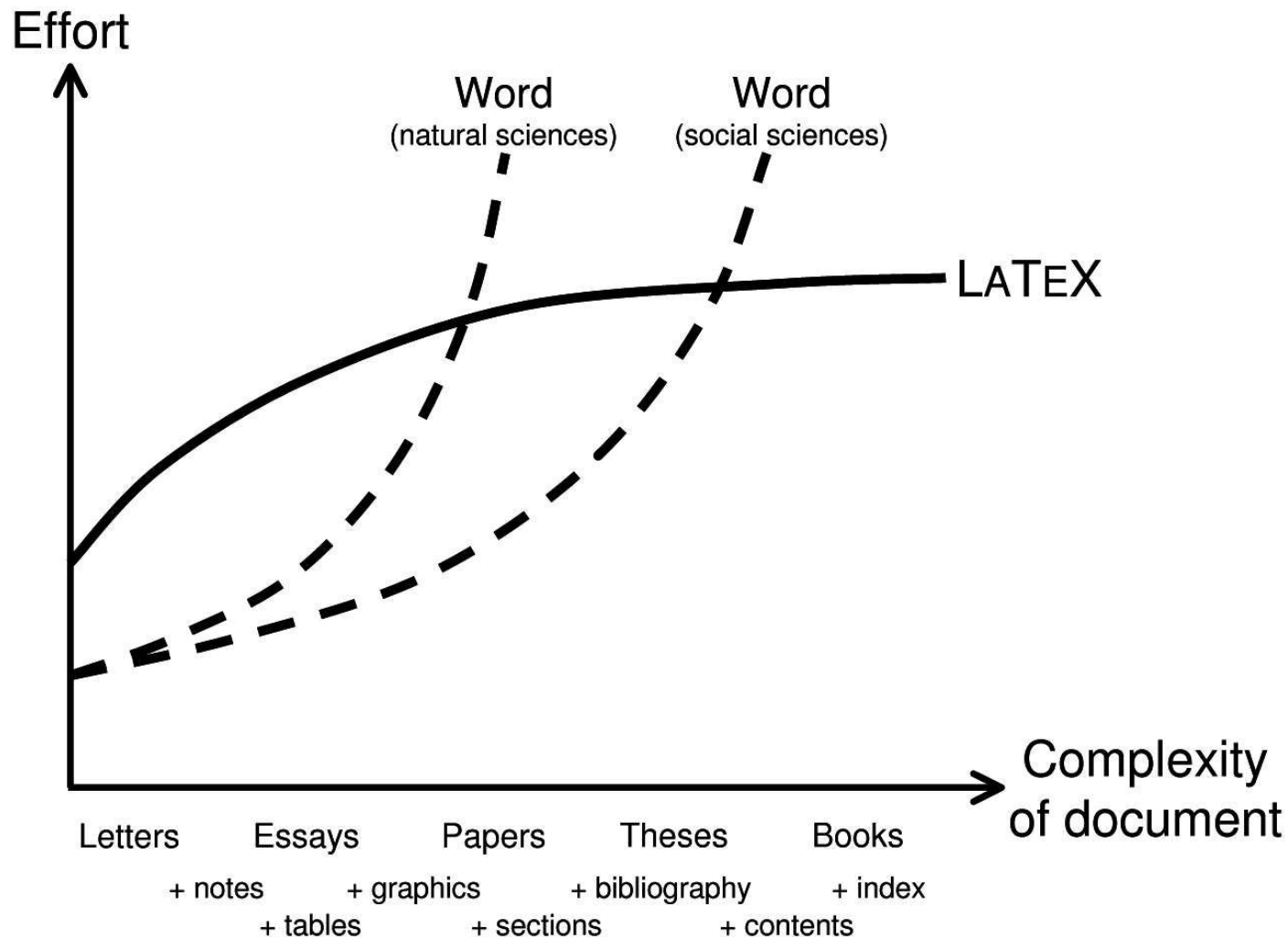
DAY_1

LaTeX



Why LaTeX





LaTeX

Pronunciation

LaTeX

Pronunciation

Lay-tek

LaTeX

Pronunciation

Lay-tek

false

LaTeX

Pronunciation

Lay-tek

Lah-tek

Lay-teks

false

LaTeX

Pronunciation

Lay-tek

Lah-tek

true

Lay-tek

false

LaTeX

What is LaTeX ?

LaTeX is a high-quality typesetting system; it includes features designed for the production of technical and scientific documentation.

The LaTeX system is a markup language that handles typesetting and rendering, and can be arbitrarily extended.

LaTeX

Tools/Softwares

LaTeX

Tools/Softwares



LaTeX

Tools/Softwares



<https://www.latex-project.org/get/>





ShareLaTeX



SCISPACE



L^AT_EX

Au|thorea

PVPEERIA



LaTeX

Tools/Softwares



- Intuitive Writing Platform
- Nothing to install
- Error Handling
- Simple Online Collaboration
- Link Sharing
- Over 6000 templates

LaTeX

Tools/Softwares



<https://www.overleaf.com/>

Basics to Know in any software tool



LaTeX

Workflow



Overleaf

<https://www.overleaf.com/>

Let`s look at overleaf.com



Source Rich Text Ω

Recompile



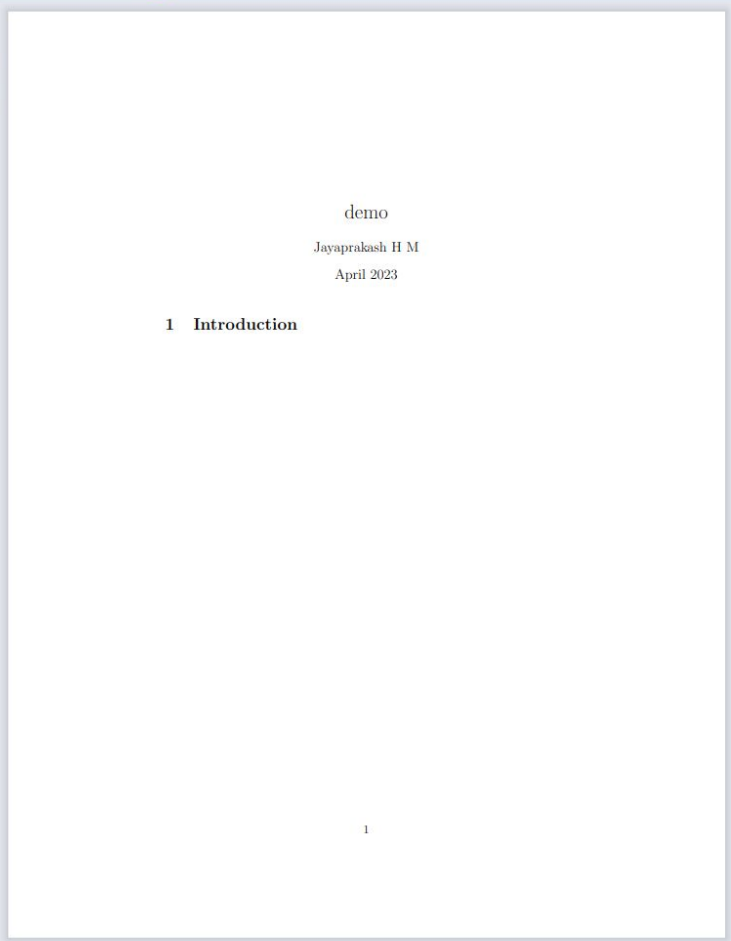
main.tex

```
1 \documentclass{article}
2 \usepackage{graphicx} % Required for
  inserting images
3
4 \title{demo}
5 \author{Jayaprakash H M}
6 \date{April 2023}
7
8 \begin{document}
9
10 \maketitle
11
12 \section{Introduction}
13
14 \end{document}
15
```

File outline

- Introduction

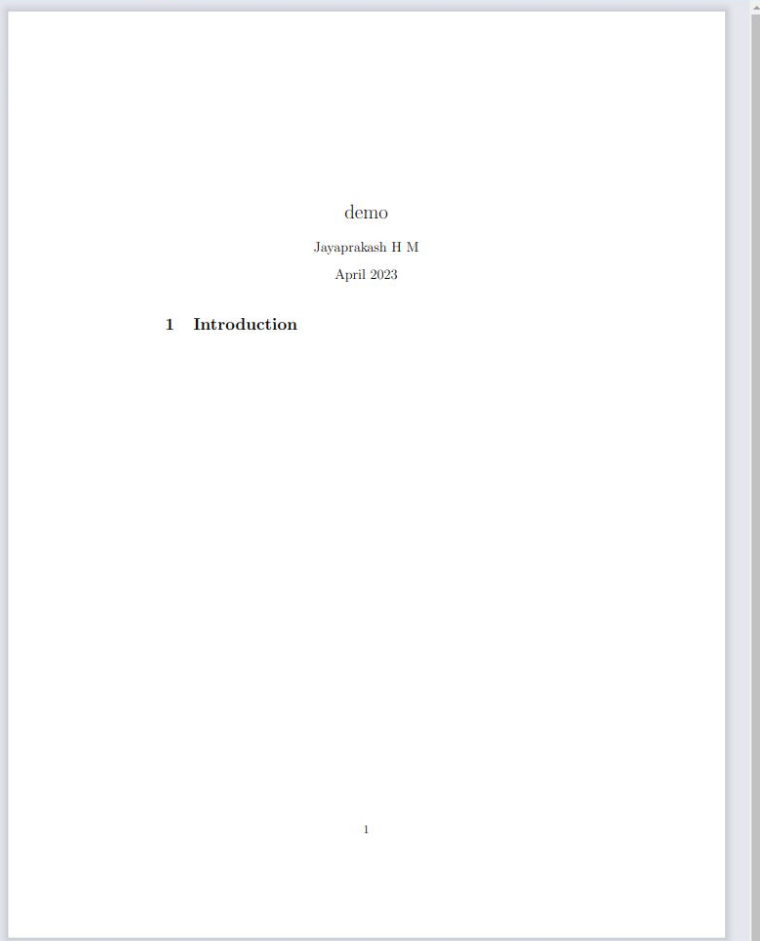
Documentation



main.tex

File outline
Introduction

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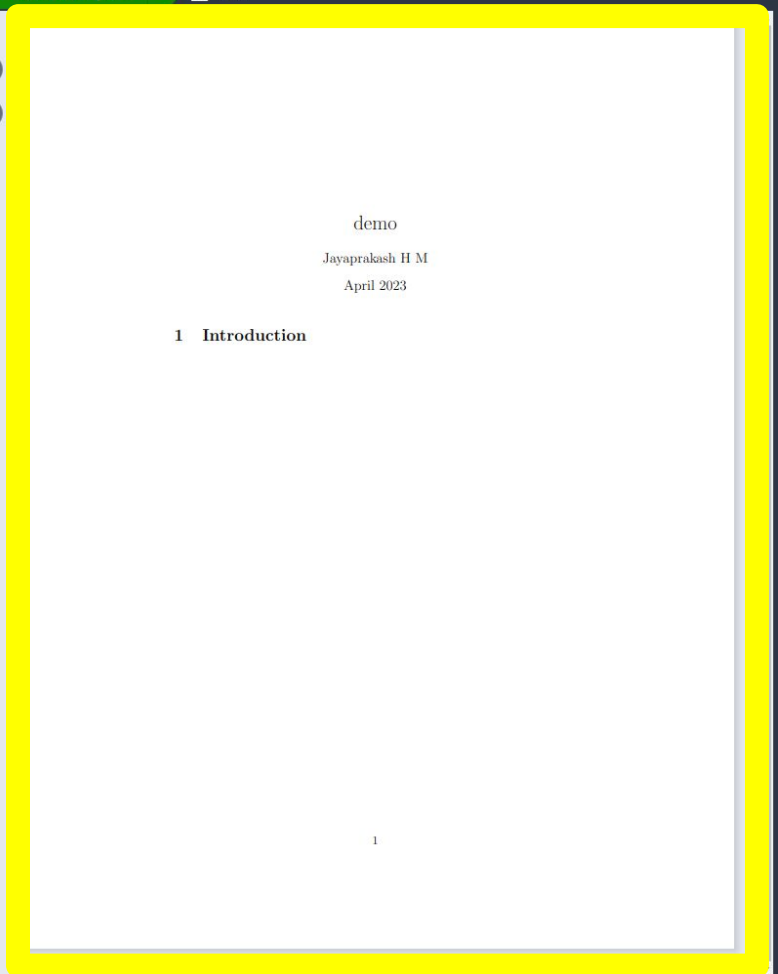
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File outline

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Documentation



LaTeX

TeX

Code of LaTeX
document

.tex

Exporting

PDF

To Read PDF

.pdf

main.tex

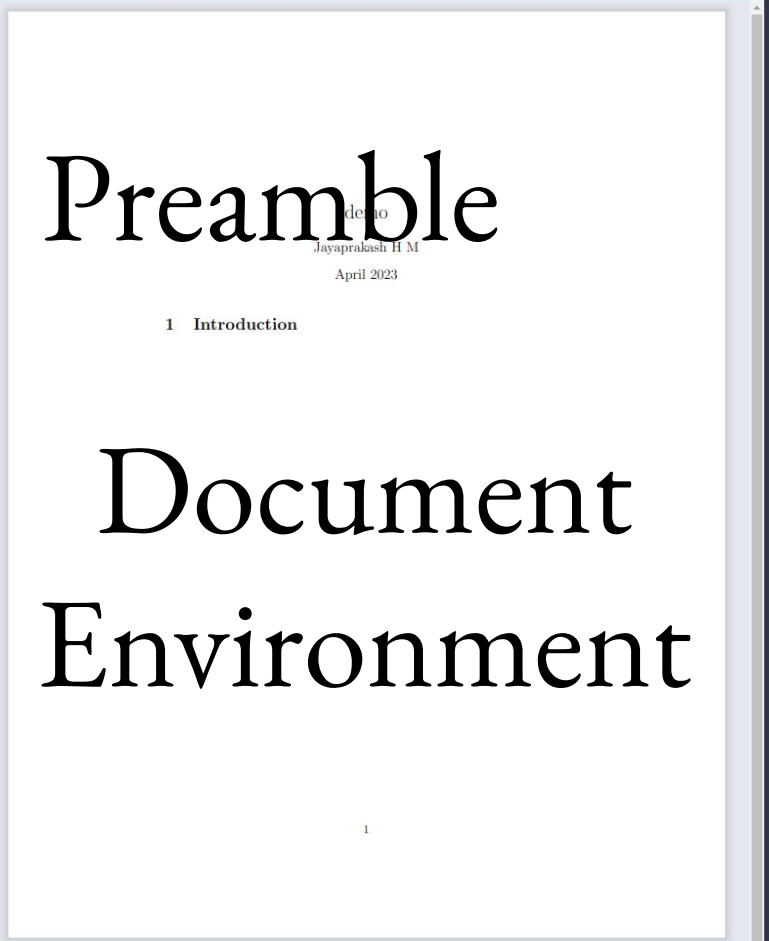
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File outline

- Introduction

Documentation



LaTeX

Basic Text
Manipulation

LaTeX

Font Size

	Default		
Command	10-point	11-point	12-point
<code>\tiny</code>	5-point	6-point	6-point
<code>\scriptsize</code>	7-point	8-point	8-point
<code>\footnotesize</code>	8-point	9-point	10-point
<code>\normalsize</code>	10-point	11-point	12-point
<code>\large</code>	12-point	12-point	14-point
<code>\Large</code>	14-point	14-point	17-point
<code>\LARGE</code>	17-point	17-point	20-point
<code>\huge</code>	20-point	20-point	25-point
<code>\Huge</code>	25-point	25-point	25-point

LaTeX

Font Style

Normal text \longrightarrow Normal text

`\textbf{Bold text}` \longrightarrow **Bold text**

`\textit{Italic text}` \longrightarrow *Italic text*

`\underline{Underlined text}` \longrightarrow Underlined text

`\textbf{\textit{Bold italic text}}` \longrightarrow ***Bold italic text***

`\textbf{\underline{Bold underlined text}}` \longrightarrow **Bold underlined text**

`\textit{\underline{Italic underlined text}}` \longrightarrow *Italic underlined text*

`\textbf{\textit{\underline{Bold italic underlined text}}}`

\longrightarrow ***Bold italic underlined text***

LaTeX

Text Underline

`\underline{Text}`

Imagine the lines represent the margins of a paper. \LaTeX normally wraps text to fit the page as best it can.

However, underlining text can cause \LaTeX to get confused, which leads to poor spacing and text-wrapping decisions. Aside from creating strange spacing, it will also not break long lines of text.

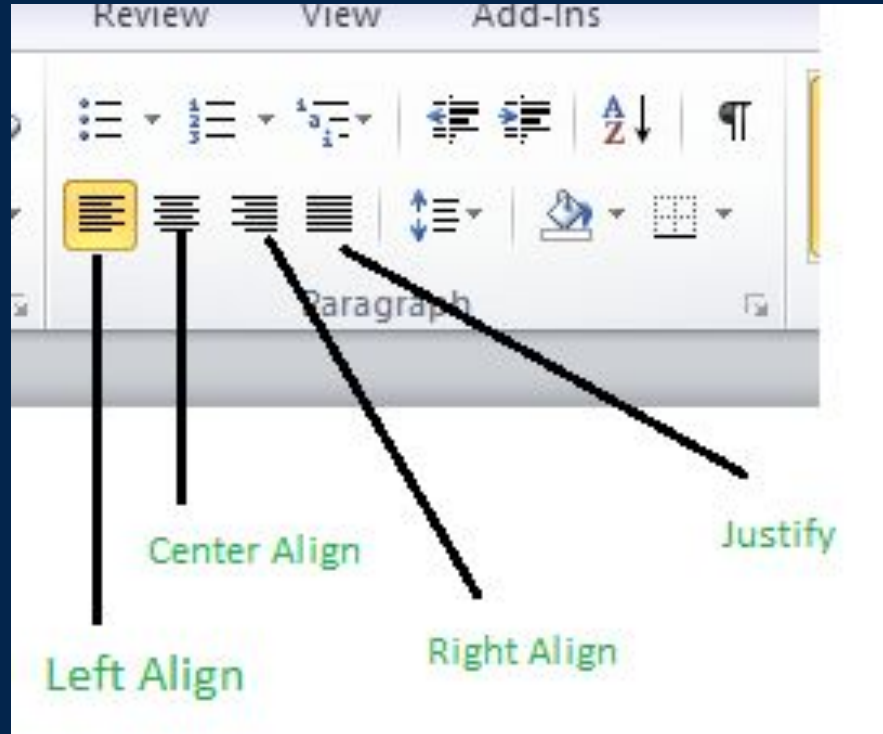
`\usepackage{ulem} \longrightarrow \uline{Text}`

The `ulem` package fixes the text-wrapping and spacing issues. This is useful for long strings of underlined text.

LaTeX

Text Justification

Text Justification / Alignment



Fully Justified Text (Default)

Fully justified text is spaced out so that it stretches to fill the entire width of the page. Notice that the left and right margins are perfectly straight.

Center Justified Text

```
\begin{center} ... \end{center}
```

Center justified text is aligned down the center of the page. The spacing between the words is not stretched out, which leads to ragged margins on the left and right.

Left Justified Text

```
\begin{flushleft} ... \end{flushleft}
```

Left justified text is aligned with the left margin. The spacing between the words is not stretched out, which leads to a ragged margin on the right.

Right Justified Text

```
\begin{flushright} ... \end{flushright}
```

Right justified text is aligned with the right margin. The spacing between the words is not stretched out, which leads to a ragged margin on the left.

LaTeX

Line Breaks

This is a line of text. \\

This is another line of text. \\[\\baselineskip]

This is yet another line of text. \\[2\\baselineskip]

This is the last line of text.

Left Justified

This is a line of text.
This is another line of text.

This is yet another line of text.

This is the last line of text.

Center Justified

This is a line of text.
This is another line of text.

This is yet another line of text.

This is the last line of text.

Right Justified

This is a line of text.
This is another line of text.

This is yet another line of text.

This is the last line of text.

LaTeX

Units used in
LaTeX

L^AT_EX Units of Length

in	inches
cm	centimeters
mm	millimeters
pt	points - about $1/72$ of an inch
em	about the width of an m
ex	about the height of an x

LaTeX

Basic Math
Manipulation