Module 10: Creating documents with LaTeX

Overview

LaTeX(http://latex-project.org) is a typesetting system for producing scientific and technical documents, that behaves like a programming language such as HTML.

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Availability

LATEXis available for free for all systems (http://latex-project.org/ftp.html) and can also be accessed through the cloud, for example by using https://www.sharelatex.com.

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Help!

For comprehensive and accessible documentation, see https://www.sharelatex.com/learn

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In any document, a command such as

```
 \documentclass{article}
```

defines the class while the commands

```
\begin{document}
...
\end{document}
```

defines the environment that is the document.

Mathematical Notation

LaTeX makes it very easy to use mathematical notation:

Command	Output
\mu	μ
\sigma	σ
x^2	x^2
n_i	n_i
\frac{1}{2}	$\frac{1}{2}$

Inline mathematical notation must be enclosed within \$ signs.

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In some cases, mathematical environments are created. For example,

```
\[
ax^2 + bx^2 + c = 0
\]
```

produces the output

$$ax^2 + bx^2 + c = 0$$

To number an equation, use an equation environment specified by

```
\begin{equation}
...
\end{equation}
```

What is LATEX?

Required
Commands

Mathematical
notation

Tables

Tables

In order to create the table

Name	Age
Joe	21
Amy	19
Bill	19

we use the LATEXcode

```
\begin{center}
\begin{tabular}{c|c}
Name & Age\\\hline
Joe & 21\\
Amy & 19\\
Bill & 19\\
\end{tabular}
\end{center}
```