LaTeX

Prepare presentation and report

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What is LaTeX ?

LaTeX is a document markup language and document preparation system. Within the typesetting system, its name is styled as LaTeX.

History of LaTeX

- TeX was dicovered by Donald Knuth.
- Professor of "The Art of Computer Programming" at Stanford University.
- He is a father of algorithm analysis.

Installation

Installation of LaTeX is quite easy.
Go to terminal and type

- **$ sudo apt-get install texlive-full**

Simple document

```
\documentclass [a4paper,12pt]{article}

\usepackage {...}
% ------------------------------------------
\begin{document}
% ------------------------------------------
.
.
.

% ------------------------------------------
\end{document}
```

Simple document

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\documentclass [a4paper,12pt]{article}

\usepackage {...}
% ----------------------------------------
\begin{document}
% ----------------------------------------
.
.
.

% ----------------------------------------
\end{document}
```

preamble

Simple document

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\usepackage {...}
% ----------------------------------------
\begin{document}
% ----------------------------------------
.
.
.

% ----------------------------------------
\end{document}
```

preamble

body

Title page

```
\title{A Sample Document}
\author{Heath A. James \and Guy Kloss}
\date{...}

.
.
.

\maketitle
```

Title page

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.
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preamble

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preamble

body

Table of contents

Use: `\tableofcontents`

Contents

List of figures

Use: `\listoffigures`

List of Figures

Include images

To include image do following steps:

- **Include**

```
\usepackage{graphicx} in preamble
```

- **Include following code in body**

```
\begin{figure}[placement specifier]
\includegraphics[scale=o.1]{figure.png}
\caption{Example}
\end{figure}
```

Specifier

Specifier	Description
h	Place the float here
t	At top of the page
b	At the bottom of the page

Insert code

```
\usepackage{verbatim} in preamble
```

Following code in body:

```
\begin{verbatim}
write code here ...

\end{verbatim

}
```

Ordered lists

Numbered list:

```
\begin{enumerate}
\item The labels consists of sequential numbers.
\item The numbers starts at 1 with every call to the
enumerate environment.
\end{enumerate}
```

Output:

1. **The labels consists of sequential numbers.**
2. **The numbers starts at 1 with every call to the enumerate environment.**

Ordered lists

Bulleted list:

```
\begin{itemize}
\item The individual entries are indicated with a
black dot, a so-called bullet.
\item The text in the entries may be of any length.
\end{itemize}
```

Output:

- **The individual entries are indicated with a black dot, a so-called bullet.**
- **The text in the entries may be of any length.**

Ordered lists

Nested list:

```
\begin{itemize}
\item First level item
\begin{enumerate}
\item Second level item
\item Third level item
\end{enumerate}
\end{itemize}
```

Output:

- **First level item**
  1. **Second level item**
  2. **Third level item**

Table

```
\begin{tabular}{|l|c|r|}
\hline \multicolumn{3}{|c|}{Sample Tabular} \\
\hline Left & centered & right \\
\hline Left items & centered & right aligned \\
\hline
\end{tabular}
```

Output:

Sample Tabular		
Left	**centered**	**right**
Left items	**centered**	**right aligned**

Table

If you want table with caption and label and specify the placing of table then use:

```
\begin{table}[h]
\begin{tabular}{|l|c|r|}
\hline \multicolumn{3}{|c|}{Sample Tabular} \\
\hline Left items & centered & right aligned \\
\hline
\end{tabular}
\caption{example}
\end{table}
```

Output:

Sample Tabular		
Left items	**centered**	**right aligned**

Table: example

Specifier

Specifier	Description
l	left justified columne
c	centered column
|	vertical line
||	double vertical line
&	column seperator

Headings

```
\section*{\LaTeX{}}
\section{\LaTeX{}}
\subsection{Features}
\subsubsection{Report}
\subsubsection{Presentation}
\subsection{Advantages}
\paragraph{My name is jaspreet kaur doing B-tech in
computer science and engineering from GNDEC ludhiana.}
\subparagraph{My name is jaspreet kaur doing B-tech in
computer science and engineering from GNDEC ludhiana.}
```

Headings:Output

LaTeX

1 LaTeX

1.1 Features

1.1.1 Report

1.1.2 Presentation

1.2 Advantages

My name is jaspreet kaur doing B-tech in computer science and engineering from GNDEC ludhiana.

My name is jaspreet kaur doing B-tech in computer science and engineering from GNDEC ludhiana.

Introduction

Beamer is a LaTeX class for creating presentations.Preparing presentations with beamer is different from preparing them with wysiwyg programs like OpenOffice's Impress, A beamer presentation is created like any other LaTeX document: It has a preamble and a body, the body contains sections and subsections, the different slides (called frames in beamer).

Features

- **Basics of LaTeX works with Beamer**
- You can easily create overlays and dynamic effects.
- You can change the appearance of your presentation to suit you purposes.
- The final output is typically a pdf-file which is platform independent.
- Professional look of presentation
- You can create presentation using same source you wrote for LaTeX articles.

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Basic Structure

```
\documentclass{beamer}   % class
\usetheme{Warsaw}    % style
\usecolortheme{whale}   % color
\usepackage{graphicx}
\title{Beamer}
\subtitle{presentation}
\author{Jaspreet}
\begin{document}
\frame{\titlepage}

\end{document}
```

Beamer

presentation

Jaspreet

June 27, 2012

Introduction

write intro here

Basic Structure

Frames

A basic frame

```
\begin{frame}[<alignment>]
  \frametitle{Frame Title Goes Here}
    Frame body text and/or LaTeX code
\end{frame}
```

Frame title goes here

Frame body text and/or LaTeX code

Code in beamer

```
\usepackage{verbatim}
...
\begin{frame}[fragile}
```

```
\begin{verbatim}
Sample text
\end{verbatim}
```

Blocks

```
\begin{block}{Introduction to {\LaTeX}}
``Beamer is a {\LaTeX}class for creating presentations
that are held using a projector...''
\end{block}
```

Introduction to LaTeX

"Beamer is a LaTeXclass for creating presentations that are held using a projector..."

Any Question?

Thank You