Reading 04: Generating Documents

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This document provides a basic overview of \LaTeX.  

Documents

To denote the beginning and end of a document, you should do the following:

\documentclass[letterpaper]{article}
...
\begin{document}
...
\end{document}

Packages

To import Packages, you should use the usepackage command after the documentclass command and before the document environment (ie. the preamble):

\usepackage{graphicx}
\usepackage{hyperref}
\usepackage[margin=1in]{geometry}

Titles

To create a Title, add the following to your document’s preamble:

\title{Reading 08: Document Tools}
\date{}
\author{Domer McDomerson}

Next, add the \maketitle command to your document environment:

\begin{document}
\maketitle
...

Sections

To create Section Headers, you use the following command:

\section{Overview}

To remove the leading number, append a \* after the section command name.
\section*{Overview}

Styles

- To make text \textbf{Bold} use the code: {\bf text}.
- To make text \textit{Italicized} use the code: {\it text}.
- To make text \texttt{Monospaced} use the code: {\tt text}.

Verbatim

To show \textit{Verbatim Blocks} of text such as:

```bash
#!/bin/sh
for argument in $@; do
echo $argument
done
```

Use the \texttt{verbatim} environment:

```
begin{verbatim}
#!/bin/sh
for argument in $@; do
echo $argument
done
end{verbatim}
```

To show a \textit{Verbatim Blocks} of text inline, use the following code:

Here is \verb|Verbatim Blocks of Text|!

Enumeration

To provide an \textbf{Enumeration} of items such as:

1. First: First enumeration.
3. Third: Third enumeration.

Use the following code:

```
\begin{enumerate}
\item{\tt First}: First enumeration.
\item{\tt Second}: Second enumeration.
\item{\tt Third}: Third enumeration.
\end{enumerate}
```
Itemization

To provide an **Itemization** of items such as:

- **First**: First itemization.
- **Second**: Second itemization.
- **Third**: Third itemize.

Use the following code:

```latex
\begin{itemize}
  \item{\tt First}: First itemization.
  \item{\tt Second}: Second itemization.
  \item{\tt Third}: Third itemize.
\end{itemize}
```

Table

To create a **Table** such as:

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value 1,1</td>
<td>Value 1,2</td>
<td>Value 1,3</td>
</tr>
<tr>
<td>Value 2,1</td>
<td>Value 2,2</td>
<td>Value 2,3</td>
</tr>
<tr>
<td>Value 3,1</td>
<td>Value 3,2</td>
<td>Value 3,3</td>
</tr>
<tr>
<td>Value 4,1</td>
<td>Value 4,2</td>
<td>Value 4,3</td>
</tr>
</tbody>
</table>

**Table 1: Example Tables**

Use the following code:

```latex
\begin{table}[h!]
\centering
\begin{tabular}{r|l||c}
  Column 1 & Column 2 & Column 3 \\
  \hline
  Value 1,1 & Value 1,2 & Value 1,3 \\
  Value 2,1 & Value 2,2 & Value 2,3 \\
  Value 3,1 & Value 3,2 & Value 3,3 \\
  Value 4,1 & Value 4,2 & Value 4,3 \\
\end{tabular}
\caption{Example Tables}
\label{tbl:example}
\end{table}
```

Figures

To include a **Figure** such as:

Use the following code:

```latex
\begin{figure}[h!]
\centering
\includegraphics[width=\textwidth]{children.jpg}
\caption{Cuties}
\label{fig:cuties}
\end{figure}
```
References

To reference an internal Figure such as Figure 1 or Table such as Table 1 refer to the label using the ref.