Making Slides Using Beamer

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Document Structure

To produce a slide presentation using \LaTeX you must use the \texttt{beamer} document class. You would typically have a title, and an author. And each slide must be included in a \texttt{frame} environment, so your first slide presentation document might look something like:

\begin{verbatim}
\documentclass[options]{beamer}
\usetheme{Boadilla}
\setbeamercovered{transparent}
\title{Long Title}
\subtitle{Short Title}
\author{Your Name}
\institute[HU]{Harding University}
\begin{document}
\begin{frame} ...
\end{frame}
\end{document}
\end{verbatim}
This is the text of the first frame, using default positioning. A position option may be included in the frame command in the form \begin{frame}[option], where the options are [t] - top; [b] - bottom; and [c] - center (default setting).

### Block Environment

Text in a slide (frame) can be set off in a block environment to make it show up a little better. A title for the block can be included by typing \begin{block}{Block Environment}.

If you do not want a title - you just want the text offset - you must include a set of open braces {} (an empty title) at the end of the \begin{block} command.
Second Frame

This is the text of the second frame.

Here we have used the [t] option to position the text at the top of the frame.
We can enter text in a frame using all the typical \LaTeX commands for equations, e.g.

\[ \vec{F} = m \vec{a}. \] (1)

You can enter itemized lists

- one
- two
- three

or enumerated lists

1. one
2. two
3. three
Columns

You can set off text and equations in different columns. Here we create two columns, each taking up roughly 1/2 the text width of the slide (the actual setting is .45 times the text width).

Column One

The information in a column can be simple text, as in this column, or it can be blocked off inside block environments, as we have done in column two.

Column Two

Equations

\[ \vec{F} = m\vec{a} \]

Text

This is some text.

A simple block without a title.
Overlays and Itemized Lists

You are familiar with itemizing information, such as:

- Item One
- Item Two
- Item Three

You can enhance your presentation by presenting each item one at a time. This is accomplished by using overlays. These overlays are actually separate duplicate frames created by the compiler which add the additional items according to overlay specifications. For example,

**Command**

\begin{itemize}
  \item<1-> Item One
  \item<2-> Item Two
  \item<3-> Item Three
\end{itemize}

**Result**

- Item One
- Item Two
- Item Three
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\end{itemize}

Command
\begin{itemize}
\item Item One
\item Item Two
\item Item Three
\end{itemize}

Result
- Item One
- Item Two
- Item Three
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```

Command

\begin{itemize}
\item Item One
\item Item Two
\item Item Three
\end{itemize}

Result

- Item One
- Item Two
- Item Three
Interesting Twists with Itemized Lists

You can also introduce some interesting variations on this idea, by using the overlay commands to change the order in which the different items are visible. Most environments (including the block environment) allow overlay specifications, as do many other commands, such as the \textbf command, as shown below.

Command
\begin{itemize}
\item<3> Item One
\item<2-> \textbf<3>{Item Two}
\item<1> Item Three
\end{itemize}

Result
- Item One
- Item Two
- Item Three
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Command
\begin{itemize}
\item<3> Item One
\item<2-> \textbf<3>{Item Two}
\item<1> Item Three
\end{itemize}

Result
- Item One
- Item Two
- Item Three
Interesting Twists with Itemized Lists

You can also introduce some interesting variations on this idea, by using the overlay commands to change the order in which the different items are visible. Most environments (including the block environment) allow overlay specifications, as do many other commands, such as the \textbf command, as shown below.

<table>
<thead>
<tr>
<th>Command</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>\begin{itemize}</td>
<td></td>
</tr>
<tr>
<td>\item&lt;3&gt; Item One</td>
<td>● Item One</td>
</tr>
<tr>
<td>\item&lt;2-&gt; \textbf&lt;3&gt;{Item Two}</td>
<td>● Item Two</td>
</tr>
<tr>
<td>\item&lt;1&gt; Item Three</td>
<td>● Item Three</td>
</tr>
<tr>
<td>\end{itemize}</td>
<td></td>
</tr>
</tbody>
</table>
Using the Uncover Command

Suppose you want to offer several options for party favors (with a preferred choice):
1. Balls
2. Balloons
3. Babboons

Hints:
- Balls are round
- Balloons are soft
- Babboons are fierce
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## LaTeX Commands and Their Effects

<table>
<thead>
<tr>
<th>Command</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textbf{Sample}</td>
<td>Sample</td>
</tr>
<tr>
<td>\textit{Sample}</td>
<td>Sample</td>
</tr>
<tr>
<td>\textsl{Sample}</td>
<td>Sample</td>
</tr>
<tr>
<td>\alert{Sample}</td>
<td>Sample</td>
</tr>
<tr>
<td>\texttt{Sample}</td>
<td>Sample</td>
</tr>
<tr>
<td>\color{green}Sample</td>
<td>Sample</td>
</tr>
</tbody>
</table>
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<td>Sample</td>
</tr>
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<td>\textcolor{green}{Sample}</td>
<td>Sample</td>
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