

# Practical Session: LaTeX Beamer Class

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## Objective

By the end of this session, students will be able to create a presentation using the `beamer` class in LaTeX, customize themes, and structure content into frames.

## Instructions

Complete the following exercises and answer the questions provided. Test each solution by compiling it in a `.tex` editor.

## Exercises

### 1. Basic Beamer Setup

Create a new `.tex` document and set up a basic `beamer` presentation with the following details:

- Title: Introduction to Beamer
- Author: Your name
- Date: Today's date

**Question:** Which command is used to create a new frame in a `beamer` presentation?

### 2. Adding Frames

Add three frames to your presentation:

- Frame 1: Title Slide (with the title, author, and date).

- Frame 2: **Introduction** (with a short description of what Beamer is).
- Frame 3: **Main Topics** (list three topics you would cover in a Beamer class).

**Question:** Which environment is used to add items in a list in a frame?

### 3. Theme Customization

Experiment with different Beamer themes. Add the **Berlin** theme to your presentation by using the following command in the preamble:

```
\usetheme{Berlin}
```

Then try the **Madrid** theme. **Question:** How does changing the theme alter the appearance of the slides?

### 4. Using Blocks

Create a new frame titled **Beamer Blocks** and add three types of blocks:

- A **block** with the title "Information"
- An **alertblock** with the title "Important"
- An **exampleblock** with the title "Example"

Write a sentence in each block describing its purpose. **Question:** What is the difference in appearance between these blocks?

### 5. Overlay Effects

Create a slide that introduces three points, but have each point appear one by one (using **pause** or overlay specifications). **Question:** What effect does the **pause** command have within a frame?

### 6. Using Columns

Create a new frame with two columns. In the left column, write a short summary about the benefits of Beamer. In the right column, add a simple list of three practical applications for Beamer. **Question:** Which environment allows you to divide content into columns in Beamer?

### 7. Adding Images

Add a frame titled `Beamer Image` and include an image of your choice. Use the `graphicx` package and adjust the image width to 0.5 of the text width. **Question:** What command is used to add images in a frame in Beamer?

## Additional Questions

- How does the `beamer` class differ from the `article` class in LaTeX?
- Why is it important to structure presentations with different frames and blocks?
- How can you change the color scheme of a Beamer presentation?